

ALBERTA

DEPT. OF
PUBLIC
WORKS

ANNUAL
REPORT

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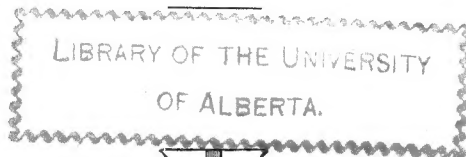
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ANNUAL REPORT
OF THE
DEPARTMENT OF PUBLIC WORKS
OF THE
PROVINCE OF ALBERTA
1909

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY



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EDMONTON, March 15, 1910.

To His Honour,

GEORGE HEDLEY VICARS BULYEA,

Lieutenant Governor of the Province of Alberta.

SIR,—I have the honour to transmit herewith the Annual Report of the Department of Public Works from January 1 to December 31, 1909.

I have the honour to be, sir,

Your obedient servant,

(Sgd.) W. H. CUSHING,

Minister of Public Works.

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REPORT
OF THE
DEPUTY MINISTER OF PUBLIC WORKS

EDMONTON, February 1, 1910.

HON W H CUSHING, M.P.P.,

Minister of Public Works.

SIR,—I have the honour to submit herewith the report of the Department of Public Works for the year 1909

The increase and extension of the work in this department, as referred to in previous reports, still continues, there being a marked increase in the work of each branch of the department, as will be clearly shown by detailed information contained in the following pages.

The large influx of population to outlying districts has been in a large measure responsible for the increase in the work, and in view of the railway extension in many parts of the province new conditions are constantly being presented and new sections of country being opened and to meet the most urgent requirements we have endeavored to extend main roads, build bridges where possible and install ferries as far as possible to meet the traffic demands, as a means of meeting the present requirements

Reference was made in my last report to the necessity of increasing the weight and strength of structures to provide for the increased size and weight of threshing and traction engines in the country, and this year all the structures were built with this end in view, and further all existing old steel bridges have been thoroughly examined and a "Notice" placed thereon to show the load they are capable of carrying

The total number of bridges constructed during the year was 235, of which 219 were timber structures, and in addition to this 95 bridges were repaired or reconstructed. Thirteen steel bridges were constructed during the year and this will bring the total number of steel bridges in the Province to 117

Some of the bridges deserving special mention are bridge over Belly River at Taber, consisting of four 175 ft steel spans; bridge over Red Deer River at the City of Red Deer, consisting of two 200 ft steel spans and bridge over Old Man River at Macleod, consisting of three 175 ft steel spans, all on concrete substructures. In addition to the completion of the above bridges work was commenced at Cowley with the construction of two 125 ft. steel spans over the Old Man River near junction of North and Middle Forks. Reconstruction work was started on the Langevin bridge across the Bow River at Calgary. Upon completion of new bridge at Red Deer, the old bridge consisting of three 125 ft steel spans was taken down and each span erected in newly settled country, west of the 5th Meridian, as follows: One over Clearwater River, in 37-6-5; one over James River in 34-5-5 and one over Raven River in 35-3-5. The following steel bridges on timber substructures might be mentioned: Two 125 ft steel spans over Red Deer River at McDougall's Crossing. One

100 ft steel span over Medicine River west of Red Deer One 90 ft steel span over Battle River at town of Ponoka One 125 ft steel span over Battle River south of Sedgewick In addition to the above a large number of small steel bridges on timber substructures were completed in various parts of the province

As was pointed out in previous reports the policy of this department in reference to road improvement is that the department open up and improve, so far as possible, main roads, the local improvement districts being responsible for the improvement of side roads, and it is gratifying to note that in many instances the districts are taking hold and endeavoring to co-operate with the department in carrying out a uniform system of road making An effort has been made to point out to the local organizations the importance of carrying on work along these lines and with this end in view a bulletin in connection with the construction of roads has been prepared and will be issued to local improvement districts, general road foremen and any others interested in the road improvement question throughout the province The employment of competent road foremen by local improvement districts is a matter of vital importance Road work should be carried out on similar lines to all other properly managed construction works, viz., under the control of a practicable foreman competent to direct the work and demand a day's work for a day's pay

During the season 32 ferries were operated in the various portions of the province Six new ferries have been installed as follows: One over Pembina River at Entwistle, one over Peace River at Dunvegan; one over Pembina River in 26-56-7-5; one over Belly River north of Chauvin in 23-45-2-4; one over Old Man River west of Monarch; one over Bow River south of Brooks In view of bridges having been constructed at or near the original locations, the following ferries have been moved to points where they could be used to good advantage Ferry over Bow River at Eagle Ribs Crossing to a point on Bow River near S Mission School, Indian Reserve Ferry over Big Red Deer moved to a point on the same stream near Carrington, ferry over Belly River south of Vermilion moved to a point on the same stream in section 19-45-7-4 As already intimated, ferries are being installed at points where it is impossible, with the funds at our disposal, to construct bridges, as a means of meeting the traffic requirements for the present

Four hundred and eighty-five miles of fireguards were ploughed during the year which is considerably less than the mileage last year, and is evidence that in view of the rapid settlement, improvement of roads and extension of irrigation, the amount of fireguarding in the future will gradually decrease

In my last report reference was made to our endeavors to assist settlers, so far as possible, who were experiencing great difficulty in obtaining an adequate supply of water Generally speaking the water supply in the province is good There are, however, sections in the southern and eastern portion of the province where considerable difficulty is being experienced in obtaining water I might point out that drilling is generally done upon road allowances where if water is obtained, the well is of service to the adjacent community, and the operations determine if water is available and at what depth, operations being more in the nature of tests to determine if water is available, than to provide a supply for all settlers from the revenue of the province, which would be altogether too large an undertaking

It is gratifying to note that out of the 20 wells sunk a fairly good supply of water has been obtained in 17. In addition to the public wells a number of private wells were drilled where settlers were prepared to meet all the expenses, the use of drilling machine being supplied free by the department.

With reference to the administration of The Steam Boilers Act I would point out that owing to the high steam pressure now being carried on boilers it was thought advisable, in order to protect the public and safeguard life, that the method of construction in the province should be raised to a more efficient standard. With this object in view a ruling for the construction and inspection of steam boilers was adopted by the department with good results to the boiler users of the province. In addition to this a conference was organized between the inspectors of Alberta and Saskatchewan with a view of formulating uniform boiler rules for the two provinces.

These rules with minor alterations have been adopted by Alberta. Further, I understand the Province of Saskatchewan has adopted these rules also, so there will be a uniform boiler law in these two provinces. The work in this branch has increased considerably during the past year and provisions will have to be made for an extension of the staff if the work is to be effectually carried out.

In the Coal Mines Branch statistics submitted show a steady development in the mining industry of the province, the total output for 1909 being 2,174,329 tons as against 1,845,000 last year, which shows that there has been an increase of 17.85% over last year, and doubtless this increase would have been still greater had it not been for a dispute between the operators and their workmen during the early part of the year, which had the effect of closing down most of the large mines in the southern part of the province for about three months. During the year 32 new mines were opened and eight abandoned, the number of mines now in operation being 121. In my last report reference was made to the marked decrease in the number of accidents in the mines, and it is pleasing to note that this year the number of accidents is even less than the year before, which is due to the Department insisting that every precaution be taken in operating the various mines.

With reference to building construction during the year reference might be made to the fact that the erection of steel and masonry work in connection with the Parliament Buildings at Edmonton, has been carried on with success. The work of the asylum at Ponoka which was started the latter part of last year has been continued, also work on court house at Edmonton fairly well advanced. Court house at Fort Saskatchewan was completed. Telephone building at Lethbridge was also completed, also work in connection with court house and jail at that point was started. Land titles building, Calgary, heating building, Calgary, automatic telephone substation at Calgary, also telephone warehouse and office building at Calgary were also completed. Work was also started on the University building at Strathcona. Fuller description of the work in connection with each building will be shown further on in the report.

Work of the Local Improvement Branch shows a steady increase, not only in the assessment and collections of taxes which the department deal with directly, but more especially in the assistance rendered in the administration of affairs of the villages and small local improvement districts. The total amount of taxes and fees collected by this department during the year from assessments levied under

The Local Improvement Act and Educational Tax Act, together with arrears due small local improvement districts, school districts and villages amounted to \$261,383 73. At the end of the year there were 188 small local improvement districts fully organized and carrying on business in the province. Fourteen new districts have been organized during the year. The work of local improvement auditors has been very effectual, in that districts are endeavoring to carry on better work and keep their books and records in better shape. The accountant's report submitted gives a fair idea of the work passed through that branch during the year.

In view of the marked increase of work in the various branches of the department, the work in the Correspondence Branch has been exceptionally heavy, the total number of communications dealt with being something over 300,000 as against 240,000 last year. The amount of cash received from all sources was \$684,849 49 as against \$414,863 15 last year all goes to show that this involves a large amount of clerical work.

In my last report it was intimated that we would have to extend quite a large amount of telephone construction during 1909, and as will be clearly shown by the report of the Superintendent of Telephones a large amount of work has been carried out on these lines. It will not be necessary for me to deal with it in detail. It is gratifying to note that the automatic equipment installed during the year is giving good service and will likely be installed at other points during the coming season.

JOHN STOCKS,

Deputy Minister

BRIDGES

During the current year bridge construction was steadily carried on throughout the province, varying from the large steel structure on permanent concrete piers to the small timber bridge on piles, all work being carried out by regular bridge crews under government foremen.

Of large steel bridges on concrete substructures, three were completed, viz., at Taber, four 175 ft spans over Belly River; at Red Deer two 200 ft. spans over Red Deer River; and at Macleod three 175 ft spans over Old Man River; the two former were commenced in 1908, but the latter was entirely built during the present year.

In addition to completion of above-mentioned steel bridges, work was commenced at Cowley on construction of two 125 ft spans over Old Man River, near junction of North and Middle Forks, and reconstruction work was started at Langevin bridge crossing of Bow River, in Calgary.

Upon completion of new bridge at Red Deer, the old bridge (consisting of three 125 ft light steel trusses) was taken down and each span re-erected in newly settled country west of the 5th Meridian, as follows, viz., over Clearwater River in Tp 37-6-5, over James River in Tp 34-5-5 and over Raven River in Tp 35-3-5.

The construction of new bridge over St. Mary's River (west of Kimbal) where 1908 floods took out one span of original bridge, left the remaining 125 ft light span available for use, and it has been re-erected over Belly River in Tp 5-26-4.

The total number of steel bridges handled during 1909 was sixteen, of which 13 were completed.

The total number of bridges constructed during year was 235, of which 219 were timber structures, and in addition to this 95 bridges were overhauled for repair and repainting. River protection work was also carried out on the Red Deer River in Tp 33-5-5, as a safeguard to the two new steel bridges on this stream, and several inspection trips were made to determine location over the more important rivers, where bridges have been petitioned for to afford settlements access to market.

A description of the more important structures dealt with is as follows, viz.:

Bridge over Red Deer River (McDougall Crossing) 3-33-5-5

Two 125 ft steel spans on timber substructure, with four 20 ft timber spans at east end. Also timber trestle composed of six 20 ft spans over backwater channel just east of main structure. As in the case of similar bridge built in 1908 at Niddrie Crossing, the Red Deer River spreads over a considerable area during highwater, having cut out no well defined main channel; to remedy this state of affairs, a system of protection was constructed upstream, to confine the main stream in channel over which bridge is erected.

Bridge over Blindman River, 9-43-2-5.

One 60 ft steel span (steel joists) on timber substructure with two 18 ft approaches and 16 ft roadway, outlet for settlement west of Ponoka

Bridge over Medicine River (west of Red Deer) 34/3-38/39-3-5

One 100 ft span (steel joists) on timber substructure, with one 20 ft approach at each end and 16 ft roadway. This correction line road taps a very large settlement, which will now have direct route east to railway

Bridge over Battle River at Town of Ponoka

One 90 ft span (steel joists) on timber substructure, with one 18 ft approach and 16 ft roadway. To replace light 60 ft span built in 1900 and give better crossing on asylum road

Bridge over Battle River, South of Sedgewick

One 125 ft steel span (steel joists) on timber substructure, with two 18 ft approaches and 16 ft roadway, located in south bend of river, on main road between Sedgewick and Stettler extension

Bridge over Weed Creek, near Ohrnville, 35-49-28-4

One 60 ft steel span (steel joists) on timber substructure, with one 20 ft approach and 16 ft roadway; on main road west of Leduc

Bridge over Weed Creek near Thorshy, 24-49-1-5

One 50 ft steel span (steel joists) on timber substructure, with one 20 ft approach and 16 ft roadway. To tap settlement south of main road

Bridge over Strawberry Creek at Telfordville, 36-49-1-5.

One 60 ft span (steel joists) on timber substructure, with three 18 ft approaches and 16 ft roadway. On main road west of Leduc

Bridge over Sturgeon River (Kelly Crossing) 8/9-55-24-4.

One 60 ft steel span (steel joists) on timber substructure, with 20 ft approach at each end and 16 ft roadway. Replacing old timber truss which was unsafe for traffic

BRIDGES, 1909.

STREAM	LOCATION	REMARKS
A R & I Canal	31/6-3/4-23-4	Two 20 ft spans on pile bents Re-construction.
A R & I Canal	2/35-2/3-24-4	Three 20 ft spans on pile bents
Arnold Creek	11/12-35-1-5	One 16 ft span on pile bents
Amisk Creek	32/33-49-18-4	Two 20 ft spans on pile bents
Amisk Creek	10/15-50-18-4	Two 20 ft spans on pile bents.
Blackfoot Coulee	20/29-18-1-4	Two 16 ft spans on pile bents.
Blackfoot Coulee	31/3-47/48-1-4	Two 16 ft spans on pile bents
Battle River	33-13-18-4	Painting
Battle River	3/27-16-21-4	Painting
Battle River	46-21-4	Painting
Battle River	5-46-20-4	Painting
Bull Horn Coulee	On Blood Indian Reserve	Two 16 ft spans
Back Channel of Old Man River at Macleod	W ½ of 13-9-26-4	Five 17 ft. spans on pile bents.
Back Channel of Old Man River at Macleod	West 13-9-26-4	Eleven 17 ft spans on pile bents
Bow River	At Cochrane	Repairs
Blois Coulee	16/17-30-26-4	One 20 ft span on pile bents.
Bow Marsh	At Calgary	Repairs.
Bow River	At Gleichen	Maintenance.
Blindman River	2/3&34/35-39/40-1-5	Maintenance.
Blindman River	On C & E Trail	Maintenance.
Blindman River	16-39-28-4	Maintenance.
Blindman River	24/29-39-1-5	Maintenance
Belly River	At Lethbridge	Repairs
Belly River	At Taber	Four 175 ft steel spans on concrete substructures
Belly River	6-5-26-4	Steel Bridge under construction
Bullhead Creek	12-8-1-1	One 20 ft span on pile bents
Bearberry Creek	4-33-5-5	Two 20 ft. spans on pile bents
Beaver Creek	7/12-8-28/29-4	One 20 ft span on pile bents.
Blindman River	9-43-2-5	One 60 ft steel span on pile substructures
Blindman River	24/25-43-2-5	Three 20 ft spans on pile bents
Blindman River	1/6-44-2/3-5	Two 20 ft pile spans
Battle River	4-43-25-4	One 90 ft steel span and one 18 ft span on pile substructures
Battle River	4-43-25-4	Maintenance.
Blindman River	20/29&19/30-42-2-5	Maintenance.
Battle River	9-43-26-4	Maintenance
Battle River	31/36-42-25/26-4	Maintenance
Blue Berry Creek	28-39-1-5	One 20 ft. span on pile bents.
Battle River	3-39-12-4	One 125 ft. steel span and two 18 ft. spans on pile substructures.
Beaver Dam Creek	3-39-12-4	Three 18 ft spans on pile bents.
Beaver Creek	36-38-13-4	Grading.
Battle River	31-42-9-4	Grading
Blackmud Creek	31/32-51-24-4	Repairs
Branch of Beaver Creek	4/5-56-19-4	Repairs
Beaverhills Creek	5/6-56-19-4	One 12 ft span.
Birch Creek	14/15-49-12-4	One 20 ft span on pile bents.
Birch Creek	2/3-51-16-4	One 16 ft span on framed bents.
Battle Creek	20-46-2-5	Three 20 ft. spans on pile bents.
Big Stone Creek	7-46-25-4	Repairs
Battle River	7-46-1-5	Three 20 ft spans on pile bents.
Battle River	25-45-23-4	Repairs
Battle River	31-45-22-4	Re-flooring
Battle River	33/34-44-23-4	Painting
Battle River	36/1-44/45-23-4	Painting

STREAM	LOCATION	REMARKS
Creek	N.E 35-45-18-4	One 18 ft span on pile bents.
Creek	14/15-48-16-4	One 16 ft span on frame bents
Creek	21/28-4-17-4	One 20 ft span on pile bents
Creek	N E 33-4-17-4	One 20 ft span on pile bents
Canal	13-3-25-4	Repairs
Coulee	8/17-4-17-4	One 20 ft span on pile bents
Creek	25/30-5-20/21-4	One 20 ft span on pile bents
Creek	8/9-4-24-4	One 20 ft span on pile bents
Creek	32-2-25-4	One 20 ft span on pile bents.
Coulee	10/11-28-2-5	One 20 ft span on pile bents.
Creek	10/15-29-2-5	One 20 ft span on pile bents
Creek	11/14-30-27-4	One 16 ft span on pile bents
Creek	28/29-30-27-4	Culverts
Creek	16/15-30-27-4	Culverts
Creek	13/14-30-27-4	One 20 ft span on pile bents
Creek	S E 15-29-24-4	One 20 ft span on stone abutments.
Coulee	5/6-53-23-4	Re-flooring
Creek	8-55-22-4	One 16 ft span and one 12 ft span on pile bents
Creek	31/32-26-1-5	One 20 ft span on pile bents
Creek	27/28-26-1-5	One 20 ft span on pile bents
Coulee	N 8-24-24-4	One 16 ft span on pile bents
Creek	N E 34-23-21-4	One 20 ft span
Creek	13-27-26-4	Repairs
Coulee	7/8-26-19 4	One 16 ft span
Creek	7-19-28-4	Excavation
Creek	22/23-35-26-4	One 16 ft span on pile bents
Creek	22/23-36-25-4	One 16 ft span Reconstruction
Creek	S 4-35-25-4	One 18 ft span on pile bents
Creek	14/15-36-28-4	One 20 ft span on pile bents
Creek	10/15-35-1-5	One 16 ft span on pile bents
Creek	22/27-35-1-5	Repairs
Creek	1/2-10-25-4	One 18 ft span on pile bents
Creek	S W 14-40-27-4	One 14 ft pile subway
Creek	14/15-40-27-4	One 20 ft span on pile bents
Creek	20/29-40-26-4	One 20 ft span on pile bents
Chin Lake	1/6-10-18/19-4	One 20 ft span on pile bents
Chin Coulee	34/35-9-18-4	One 20 ft span on pile bents
Creek	8/9-6-19-5	Repairs
Creek	1-9-22-4	Repairs
Canal	9/16-6-21-4	Repairs
Canal	22/27-6-21-4	Repairs
Canal	26/27-6-21-4	Repairs
Canal	15/16-6-21-4	Two 18 ft spans on pile bents Re-construction.
Coulee	4/32-6/7-19-4	One 20 ft span on pile bents
Creek	2/35-8/9-19-4	One 16 ft span on pile bents
Creek	4/33-8/9-19-4	One 16 ft span on pile bents.
Creek	N W 29-49-1-5	Two 20 ft spans on pile bents
Cutfoot Creek	S W 33-49-1-5	One 20 ft span on pile bents
Creek	N E 9-49-1-5	Driving piles
Creek	10/15-49-1-5	Driving piles
Coulee	27-9-4-4	One 20 ft span on pile bents
Creek	E 26-9-6-4	Two 18 ft spans on pile bents.
Creek	S W 25-7-3-4	Log bridge
Coulee	N W 26-13-6-4	Two 20 ft span bridges on pile bents
Creek	S W 7-8-3-4	Grading
Creek	12/13-15-26-4	Maintenance
Creek	N W 23-22-3-5	One 18 ft. span on framed bents
Creek	N E 1/4 24-22-3-5	One 20 ft span on framed bents.
Creek	N E 1/4 24-22-3-5	One 20 ft span on framed bents
Creek	7/8-21-2-5	Driving piles
Coulee	21/28-34-22-4	One 20 ft span on piles
Creek	29-60-27-4	22 ft log bridge.
Creek	24/25-56-5-4	24 ft log bridge

STREAM	LOCATION	REMARKS
Creek	26-56-5-4	Repairs.
Coulee	22/27-5-29-4	One 20 ft. span on pile bents.
Coulee	W 31-6-29-4	One 20 ft. span on pile bents
Chipman Creek	9/16-6-29-4	Repairs.
Creek	S E 23-6-30-4	Driving piles.
Creek	7/18-43-2-5	One 20 ft. span on pile bents
Creek	36/31-43-2/3-5	One 18 ft. span on pile bents.
Clearwater River	S 5-38-6-5	One 125 ft. span and four 20 ft spans on pile substructures.
Coulee	11-38-28-4	Three 20 ft spans on pile bents.
Creek	S E 31-38-23-4	One 16 ft. frame bent.
Creek	2/35-38/39-3-5	Small bridge
Carrot Creek	River Lot 13, Tp 54-26-4	Re-flooring.
Cut Knife Creek	5/31-38/39-16-4	One 20 ft. span on pile bents.
Creek	29/30-52-23-4	One 16 ft. span on pile bents.
Creek	19/30-52-23-4	One 16 ft. span on pile bents.
Creek	17/18-52-23-4	One 18 ft. span on pile bents.
Creek	20-51-24-4	Repairs
Creek	20-51-24-4	Repairs
Creek	1/36-56/57-20-4	One 18 ft. span on pile bents.
Creek	3/36-56-19/20-4	One 18 ft. span on pile bents
Creek	5/6-55-21-4	One 16 ft. span on pile bents.
Creek	26/27-56-20-4	One 16 ft. span on pile bents.
Creek	1/6-57-16/17-4	One 16 ft. span on pile bents.
Creek	9/10-55-21-4	One 16 ft. span on pile bents
Creek	21/22-50-9-4	One 16 ft. framed bent bridge.
Creek	2/3-53-14-4	One 16 ft. framed bent bridge
Creek	36/31-50-14/15-4	One 10 ft. span
Creek	11/14-53-13-4	One 18 ft. span on pile bents.
Creek	W 6-49-15-4.	One 16 ft. span on pile bents.
Creek	23/26-49-15-4	One 18 ft. span on pile bents.
Creek	25/26-49-15-4	One 18 ft. span on pile bents.
Creek	10/11-50-19-4	One 20 ft. span on pile bents.
Creek	4/5-57-13-4	Large culvert.
Creek	4/5-49-16-4	One 16 ft. span on pile bents.
Creek	4/33-56/57-14-4	Culvert
Creek	23/24-48-14-4	Grading.
Coulee	13/14-46-23-4	One 20 ft. span on pile bents.
Coulee	N 36-45-24-4	Two 20 ft. spans on pile bents
Creek	29-46-26-4	Two 20 ft. spans on pile bents
Creek	22-46-1-5	One 20 ft. span on pile bents
Deep Creek	25/30-74-16/17-5	150 ft. timber bridge
Dried Meat Creek	N 32-46-18-4	One 20 ft. span on pile bents.
Dried Meat Creek	S.E 3-46-18-4	One 18 ft. span on pile bents.
Deep Creek	34-56-7-5	One 18 ft. span.
Deep Creek	19-56-6-5	One 20 ft. span
Dowler Creek	34-52-24-4	Repairs.
Deep Creek	25/26-56-22-4	One 16 ft. span on pile bents.
Elzikon Coulee	20/21-5-19-4	One 20 ft. span on pile bents
Egg Creek	32-56-16-4	Repairs.
Elzikon Coulee	19/30-5-19-4	One 20 ft. span on pile bents.
Fish Creek	3/4-23-1-5	Maintenance
Foothill Creek	21/22-5-28-4	Four 20 ft. spans on pile bents
Frenchman Creek	1-39-12-4	Two 18 ft. spans on pile bents.
French Coulee	23-38-12-4	Grading
Ghost Pine Creek	3-31-22-4	Three 20 ft. spans on pile bents.
Ghost Pine Creek	20/21-31-22-4	Three 20 ft. spans on pile bents.
Gros Ventre Creek	W 10-10-4-4	Two 20 ft. spans on pile bents.
Gros Ventre Creek	N E 4-10-4-4	Two 20 ft. spans on pile bents
Gros Ventre Creek	4-10-4-4	Two 20 ft. spans on pile bents.

STREAM	LOCATION	REMARKS
Ghost Pine River	11/14-33-23-4	Two 20 ft. spans on pile bents
Ghost Pine River	21/28-33-23-4	Two 20 ft spans on pile bents
Ghost Pine River	9/16-33-23-4	One 20 ft span on pile bents
Goose Lake	E end in 3-42-11-4	Three 18 ft spans on pile bents
Goose Lake	Inlet, 18/13-42-11/12-4	Grading
Goodridge Creek	2/35-52/53-25-4	Re-flooring
High River	S. fork in 14-17-2-5	Four 20 ft spans on pile bents
High River	Middle Fork, 36-17-25-4	One 80 ft steel span
High River Dam		Repairs.
High River	6-49-28-4	Maintenance
Hudson Bay Creek	24/25-50-26-4	Four 20 ft spans on pile bents
Hyndman Creek	19/30-34-23-4	One 16 ft span on pile bents
Heart River	At Peace River Crossing	One 115 ft bridge
Horseguard Creek	29/32-39-5-5	Two 20 ft spans on pile bents
Horse Hills Creek	17/18-54-23-4	Repairs
Irrigation Canal	2/3-5-23-4	Maintenance
Irrigation Canal	33/3-4/5-23-4	Maintenance
Irrigation Canal	6-5-22-4	Maintenance
Iron Creek	25-26-44-11-4	Two 18 ft spans
Irvine Creek	2-51-24-4	Re-flooring
James River	S W, 14-34-5-5	One 125 ft steel span on pile sub-structures
James River	14-34-5-5	Bank protection
Jamieson Coulee	15-38-27-4	Repairs
Jones Creek	21/28-38-25-4	One 20 ft span on pile bents
Jones Creek	32/33-38-25-4	One 20 ft span on pile bents
Knee Hill Creek	19/20-30-25-4	Three 20 ft spans on pile bents
Knee Hill Creek	1 46-31-25/26-4	Three 20 ft spans on pile bents
Knee Hill Creek	24-31-26-4	Three 20 ft. spans on pile bents
Kipp Coulee	28, 29-6-19-4	One 20 ft span on pile bents
Kootenay River	29-6-25-4	Repairs
Knee Hill Creek	29/30-33-26-4	Two 16 ft spans on pile bents
Katchemut Creek	11/12-51-19-4	One 20 ft span on pile bents
Lesser Slave Lake	At the Narrows	Repairs.
Layton Coulee	12-3-26-4	Re-flooring
Little Bow River	31-13-23-4	One 80 ft steel span on pile sub-structures
Lobstick River	33/34-53-9-5	Six 20 ft spans, log bridge
Little Bow River	11/14-14-25-4	Maintenance
Last Hill Creek	7/18-39-4-5	Two 20 ft and one 16 ft span on pile bents
Lobstick Creek	26-39-5-5	Two 20 ft spans on pile bents
Lobstick Creek	24-39-5-5	Two 20 ft spans on pile bents
Lobstick Creek	34/45-39-5-5	Two 20 ft spans (Driving piles)
Last Hill Creek	15/16-39-3-5	Two 16 ft and two 24 ft spans on pile bents
Little Vermilion River	6/36-58/59-24/25-4	Two 20 ft spans on pile bents
Little Vermilion River	5/6-59-24-4	Three 20 ft spans on pile bents
Little Vermilion River	20/21-59-24-4	Three 20 ft spans on pile bents.
Little Vermilion River	15/16-58-22-4	One 20 ft span on pile bents and two 16 ft spans on pile bents
Limestone Creek	10/11-57-17-5	Two 20 ft spans on pile bents and one 18 ft span on pile bents
Little Stone Creek	35/36-46-27-4	One 20 ft span and one 18 ft span on pile bents



BRIDGE OVER RED DEER RIVER AT TOWN OF RED DEER.
TWO 200 FT., 38 FT. PLATE GIRDER SPAN AND 450 FT. TIMBER APPROACH, 18 FT. ROADWAY AND 6 FT. SIDEWALK.
PIERS. SAFE LOAD—20 TON TRACTION ENGINE WITH SEPARATOR.

STEEL WORK LOCATED ON CONCRETE



W-L-1's Bridge

FOUR 175 FT. STEEL SPANS, 400 FT. TIMBER APPROACH ACROSS BELLY RIVER, NORTH OF TABER, ALBERTA



MCKENZIE BRIDGE, THREE 175 FT. SPANS, 18 FT. ROADWAY, OVER MACLEOD RIVER AT TOWN OF MACLEOD, ALBERTA.



MACDOUGAL'S CROSSING.
TWO 125 FT. SPANS OVER RED DEER RIVER. VIEW TAKEN APRIL 23RD, 1909.



ONE 125 FT. SPAN OVER CLEARWATER RIVER, NEAR ROCKY MOUNTAIN HOUSE.



BRIDGE NORTH OF WAINWRIGHT OVER BATTLE RIVER, LOOKING NORTH.
125 FT. STEEL SPAN.



BRIDGE OVER WEED CREEK, WEST OF OHNVILLE, 35-49-28 W 4.
60 FT. SPAN



McKENZIE BRIDGE, MACLEOD, ALBERTA.
ERECTING STEEL WORK WITH TRAVELLING DERRICK.



MACDOUGAL'S CROSSING, SHOWING PIERS AND ABUTMENTS FOR TWO 125 FT. STEEL SPANS. VIEW TAKEN APRIL 18TH, 1909.



TINDASTOLL BRIDGE, OVER RED DEER RIVER, 6-36-28 W4.



125 FT. SPAN OVER BELLY RIVER AT SEC. 5, Tp. 5, R. 26 W 4.

STREAM	LOCATION	REMARKS
Little Stone Creek	22/23-46-26-4	Two 20 ft spans on pile bents
Little Stone Creek	12/13-46-27-4	One 16 ft span on pile bents
Little Stone Creek	27/28-46-26-4	One 18 ft span on pile bents and two 20 ft spans on pile bents
Meeting Creek	34/35-42-19-4	Three 20 ft spans on pile bents
Meeting Creek	3/4-43-19-4	Three 20 ft spans on pile bents
Milk River	36-1-13-4	Ten 20 ft spans
Medicine River	36-40-4-5	112 ft log bridge
Maynes Creek	N E 4-40-25-4	One 18 ft span
Mosquito Creek	7/18-15-26-4	Repairs
Melburn Creek	6/7-24-3-5	Small bridge
Moose Creek	26-56-5-4	Repairs
Medicine River	34/3-38/39-2-5	One 100 ft steel span and two 18 ft spans on pile substructures
Mott Creek	6/1-36-19/20-4	Two 18 ft spans on pile bents
Mill Creek	1/36-51/52-23-4	One 16 ft span on pile bents
Mill Creek	5-6-52-23-4	One 20 ft span on pile bents
Mill Creek	6/4-52-23, 24-4	Two 18 ft spans on pile bents
Mill Creek	23/24-52-24-4	Repairs
Mulligan Creek	2/35-55, 56-24-4	One 8 ft span
McLauchlin Creek	1-19-29-4	Reconstruction
McKay Creek	S E 1-10-1-4	Two 20 ft spans on pile bents
McFadden Creek	24-51-22-4	Repairs
Nose Creek	34-24-1-5	Four 20 ft spans on pile bents
Nose Creek	2/3-25-1-5	Four 20 ft spans on pile bents
North Heart River	On trail from Lesser Slave Lake to Peace River Landing	One 70 ft span bridge
Narrows of Lake	26/35-38-21-4	Grading approaches
Old Man River	10-9-26-4	Repairs
Outlet of Stirling Lake	5-7-19-4	One 18 ft span
Old Man River	13-9-26-4	Three 175 ft spans on concrete substructures
Old Man River	30/25-7-29/30-4	Repairs
Okwanim Creek	S W 26-39-15-4	Three 20 ft spans on pile bents
Prairie River	7/12-74-15/16-5	One 20 ft spans
Pine Creek	1/35-34/35-24-4	Two 20 ft spans on pile bents
Pailby Creek	S W 29-40-23-4	Two 18 ft spans on pile bents
Pailby Creek	35/36-41-23-4	One 18 ft span on pile bents
Pailby Creek	3/4-41-25-4	Two 18 ft spans
Paddle River	16-57-7-5	One 50 ft timber truss on cribs
Pothole Coulee	17-7-21-4	Reconstruction
Paddle River	15-59-3-5	One 50 ft timber truss
Pincher Creek	Town of Pincher	Bank protection
Prairie Creek	33/4-37/38-7-5	One 50 ft timber truss
Paint Earth Creek	1/2-40-16-4	Two 20 ft spans on pile bents
Paint Earth (Branch)	1/2-40-16-4	One 20 ft span on pile bents
Point Aux Pins Ck	27/28-53-22-4	Repairs
Point Aux Pins Ck	E 31-53-22-4	Two 20 ft spans on pile bents
Point Aux Pins Creek	28/29-53-22-4	Repairs
Pipestone Creek	7/12-47-23/24-5	Repairs
Ribstone Creek	1/2-44-2-4	One 18 ft span on pile bents
Ribstone Creek	1/2-44-2-4	One 18 ft span on pile bents
Rat Creek	24/25-51-3-4	One 18 ft span on pile bents
Rat Creek	3/35-52-3-4	One 18 ft span on pile bents
Robinson's Coulee	N W 20-2-25-4	One 20 ft span on pile bents
Robinson's Coulee	29-2-25-4	One 20 ft span on pile bents
Raven River	28/29-35-3-5	One 125 ft steel span, on pile substructures

STREAM	LOCATION	REMARKS
Ross Creek	28-12-5-4	Maintenance.
Ross Creek	29-12-5-4	Maintenance.
Red Deer River	S W.3-33-5-5	Two 125 ft. steel spans on pile sub-structures.
Red Deer River	36-33-5-5	Bank protection
Red Deer River	33/34-32-5-5	Bank protection
Ravine	17/18-42-25-4	One 20 ft. frame bent
Red Deer River	At Red Deer	Two 200 ft and one 35 ft steel spans on concrete substructures
Ravine	24-52-24-4	One 18 ft span on pile bents
Ross Creek	4/33-53/54-21-4	One 20 ft span on pile bents.
Stony Creek	22/27-47-20-4	Two 20 ft spans on pile bents
Stony Creek	21/28-46-20-4	Repairs
Spring Coulee	29/32-4-23-4	Five 20 ft spans on pile bents.
St. Mary's River	At Mouth of Lees Creek	Repairs
Strawberry Creek	36-49-2-5	One 60 ft steel highway span
South Saskatchewan Riv	At Medicine Hat	Maintenance.
Seven Persons Coulee	30-12-5-4	Maintenance
South Branch of Blind- man River	30/25-42-2/3-5	One 20 ft span on pile bents.
Spring Creek	30/25-42-2/3-5	One 18 ft. span on pile bents.
Spring Creek	32-38-1-5	One 24 ft. span on pile bents.
Sturgeon River	At St Albert	Repairs
Sturgeon River	2-54-26-4	Repairs.
Stony Creek	3/4-51-24-4	One 20 ft span on pile bents
Sucker Creek	24-58-24-4	Repairs
Stopping Creek	S W 17-66-22-4	44 ft log bridge
Slough	7/12-58-19/20-4	One 18 ft span on pile bents.
Slough	10/15-55-17-4	Two 18 ft spans on pile bents.
Slough	1/2-55-16-4	One 20 ft. span on pile bents.
Stony Creek	29/30-46-24-4	Repairs
Sturgeon River	2-55-1-5	Maintenance.
Trout Creek	7/12-12-27/28-4	Repairs
Tongue Flag Creek	24-19-29-4	Reconstruction
Tindastol Creek	30-36-1-5	Reconstruction
Three Hill Creek	1/36-35-26-4	One 18 ft. span on pile bents
Tindastol Creek	10/15-37-1-5	One 20 ft. span on pile bents.
Three Hills Creek	31-32-24-4	Two 20 ft spans on pile bents
Three Hills Creek	9/16-32-24-4	Two 20 ft. spans on pile bents
Three Hills Creek	3-34-25-4	One 20 ft. and one 16 ft span on pile bents
Todd Creek	S W 1-9-2-5	Two 18 ft spans on pile bents.
Towatina Creek	Near Athabasca Landing	One 30 ft timber truss and two 20 ft. spans on pile bents
Towatina Creek	10/15-65-22-4	Two 20 ft. spans on pile bents
Towatina Creek	12 miles from Athabasca Landing	Reconstruction
Vermilion River	16/17-52-3-4	Four 18 ft spans on pile bents
Verdigris Coulee	9-4-16-4	One 20 ft span on pile bents
Vermilion River	28/29-57-21-4	Three 20 ft spans on pile bents
Vermilion River	25/36-48-15-4	One 16 ft framed bent span
Vermilion River	1/36-51/52-15-4	Repairs
Willow Creek	21-2-24-4	Repairs
Willow Creek	7-12-27-4	Repairs
Willow Creek	36-10-27-4	Repairs
Weed Lake	24-23-27-4	One 16 ft. span on pile bents
Weed Creek	35-49-28-4	One 60 ft steel highway span on pile substructures
Weed Creek	24-49-1-5	One 50 ft steel highway span on pile substructures
Willow Creek	30/25-7-2/3-4	One 18 ft. span on pile bents

STREAM	LOCATION	REMARKS
Wabash River	13/14-60-27-4	One 30 ft span log bridge
Wolf Creek	N E 36-31-16-4	One 20 ft span on pile bents
Wall Lake	6/1-38-19/20-4	Grading approaches
Whitemud Creek	10-51-25-4	One 50 ft. timber truss.
Washaway Creek	30/25-51/52-15-4	Repairs
Washaway Creek	34/35-51-15-4	Repairs
Waskwei Creek	33/34-51-15-4	Two 16 ft spans on pile bents.
Wetaskiwin Creek	12/7-46-24/25-4	One 20 ft. span
Waskasee Creek	23/26-35-28-4	One 20 ft span Reconstruction.
Yelling Creek	15/16-60-9-4	22 ft log bridge.

Complete List of all Steel Bridges in existence in the Province on December 31, 1909.

Battle River, between sections 33/34-44-23w4
 Battle River at Ponoka, in section 4-43-25w4
 Battle River, between sections 36/1-44/45-23w4
 Battle River, in section 9-43-26w4
 Battle River, in section 31-42-25w4
 Battle River, River Lot 15, tp 46-21w4
 Battle River, in section 33-43-18w4
 Battle River, in section 5-46-20w4
 Battle River, in section 31-45-22w4
 Battle River, in section 35-43-27w4.
 Battle River at Hardisty, in section 31-42-9w4
 Battle River, in section 33-46-6w4.
 Battle River, in section 4-43-25w4
 Battle River, in River Lot 3, tp 46-21w4.
 Battle River, in section 3-39-12w4.
 Battle River, east of section 12-45-1w4
 Belly River at Standoff
 Belly River at Lethbridge, in section 1-9-22w4
 Belly River, in section 12-3-28w4
 Belly River at Taber, in section 7-10-16w4
 Belly River, in section 6-5-26w4 (Under construction)
 Blindman River, sections 19/30-42-2w5
 Blindman River, on Calgary and Edmonton Trail, section 15-39-27w4.
 Blindman River, in section 16-39-28w4
 Blindman River, in sections 20/29-39-28w4
 Blindman River, between sections 35/2-41/42-2w5
 Blindman River, between sections 10/15-40-1w5
 Blindman River, in section 9-43-2w5
 Blindman River, between sections 2/35-39/40-1w5.
 Bow River at Calgary (Bow Marsh).
 Bow River at Morley
 Bow River at Cochrane, , between sections 34/35-25-4w5.
 Bow River at Calgary (Langevin). Under construction
 Bow River, south-west of Gleichen
 Bow River, east of Calgary, between sections 12/13-24-1w5
 Beaver Hills Creek, between sections 10/11-56-20w4.
 Beaver Hills Creek, between sections 23/26-55-19w4
 Beaver Hill Creek, south of section 5-57-20w4.

Clearwater River, in section 32-37-6w5
 Cascade Creek, at Anthracite, between sections 7/8-26-11w5.
 Crow's Nest River, north-west $\frac{1}{4}$ section 36-7-4w5
 Crow's Nest River, north-west $\frac{1}{4}$ section 36-7-4w5.
 Crow's Nest River, south-east $\frac{1}{4}$ section 36-7-4w5.

Drywood River, between sections 7/12-4-28/29w4
 Dog Pound Creek, between sections 15/22-30-3w5
 Dog Pound Creek, between sections 34/3-31/32-3w5.
 Dog Pound Creek, between sections 10/15-32-3w5

Elbow River, in section 5-24-2w5.
 Elbow River, Mission, between sections 9/10-24-1w5.
 Elbow River, Weasel Head.

Fish Creek, on Macleod Trail, in section 4-23-1w5
 Fallen Timber Creek, between sections 4/33-31/30-5w5.

High River, Alley's Ford, in section 17-20-28w4
 High River, Thompson's Crossing, in section 16-21-28w4
 High River, Middle Fork, in sections 25/36-17-2w5
 Horseguard Creek, sections 13/14-39-4w5

Irrigation Canal, between sections 3/33-4/5-23w4
 Irrigation Canal, between sections 2/3-5-23w4
 Irrigation Canal, in section 6-5-22w4.

Jumping Pond Creek, in section 13-25-5w5.
 James River, in section 14-34-5w5.

Kootenay River at Standoff, in section 29-6-25w4

Little Bow River, in section 5-15-21w4,
 Little Bow River, in section 10-11-19w4
 Little Bow River, in section 30-12-19-w4
 Little Bow River, in section 31-13-23w4
 Little Bow River, between sections 11/14-14-25w4
 Little Bow River, between Sections 12/13-15-26w4
 Little Red Deer River, in section 7-30-4w5
 Little Red Deer River, in section 17-31-4w5
 Little Red Deer River, between sections 33/4-31/32-4w5.
 Little Red Deer River, in section 32-34-2w5
 Lee's Creek, at Cardston, in section 9-3-25w4.

Mill Creek at Mountain Mill, in section 7-6-1w5
 Mosquito Creek, between sections 7/18-15-26w4
 Medicine River, in section 7-36-1w5
 Medicine River, between sections 34/3-38/39-3w5
 Medicine River, in section 20-40-3w5

Nose Creek, in section 24-24-1w5.

Old Man River (Middle Fork), near Cowley, in section 29-7-1w5.
 Old Man River (South Fork), in section 24-6-2w5
 Old Man River, in section 13-9-26w4, at Macleod
 Old Man River, in south-west section 35-7-1w5, at forks N E Cowley
 Old Man River, west of Pincher (South Fork), in section 2-7-1w5.
 Old Man River, west of Macleod, in section 10-9-26w4. 
 Old Man River (Middle Fork), at Lundbreck, in section 26-7-2w5.
 Old Man River, north of Pincher, between sections 25/30-7-29/30w4

Pincher Creek, Village of Pincher.

Red Deer River, at Red Deer, in section 20-38-27w4
 Red Deer River at Tindastoll, in section 6-36-28w4
 Red Deer River, in section 34-38-22w4
 Red Deer River, in section 36-33-5w5 Niddrie Crossing
 Red Deer River, between sections 5/32-36/37-28w4, west of Penhold
 Red Deer River, S.W section 3-33-5w5, Hagen Crossing.
 Raven River, between sections 28/29-35-3w5
 Ross Creek, at Medicine Hat, in section 28-12-5w4.

St Mary's River, section 1-2-25w4, near Kimball
 St Mary's River, at mouth of Lee's Creek, in section 23-3-25w4.
 Sturgeon River, at mouth of section 23-55-22w4 (Under construction).
 Sturgeon River, between sections 2/3-54-26w4 (Under construction)
 Seven Person's Creek, in section 30-12-5w4

Seven Person's Creek, in section 29-12-5w4
 Sturgeon River, between sections 9/10-55-24w4.
 Sturgeon River, between sections 11/14-55-24w4
 Sturgeon River, between sections 8/9-55-24w4
 Sturgeon River, at St. Albert, in section 4-54-25w4
 Sheep River, North Fork, between section 12/7-21-2/3w5
 Sheep River, South Fork, sections 8/17-20-2w5
 Strawberry Creek, in section 36-49-2w5
 South Saskatchewan River, in section 31-12-5-w4, at City of Medicine Hat

Willow Creek, north of Macleod, in section 24-9-26w4.
 Willow Creek, in section 29-9-26w4.
 Willow Creek, in section 7-12-27w4
 Willow Creek, townships 10/11-27w4.
 Weed Creek, in section 35-49-28w4
 Weed Creek, section 24-49-1w5

ROADS, 1909

Islay, south towards Battle River Grading and culverts
 Islay, north towards Saskatchewan River Cutting down hills and grading
 Range line, township 50, ranges 1 and 2, west of the 4th meridian. Culverts and grading.
 Road to ferry north of Kitscoty, through township 52, range 3, west of the 4th meridian Culverts and grading
 West from Lloydminster, between townships 49 and 50, ranges 1 and 2, west of the 4th meridian Culverts and grading
 South of Kitscoty, between townships 49 and 50, range 3, west of the 4th meridian Grading sloughs and building culverts
 Grades into Battle River Valley, township 46, range 6, west of the 4th meridian. Side hill cutting and grading.
 Fourth meridian, north of Lloydminster to River Side hill work, brushing and grading across sloughs, and culverts
 Fourth meridian, south from Lloydminster on section 36, township 49, range 1, west of the 4th meridian Culvert and grading.
 Between sections 11 and 12, township 44, range 2, west of the 4th meridian. Culvert and grade
 South of Slave Lake, beginning at east end near Sawridge to Swan River Settlement Cutting out road
 Pack trail, from mouth of Calling River to Athabasca Landing Cutting out road.
 Between Prairie River bridge and Narrows. Cutting, clearing and grubbing.
 White Fish Lake trail Brushing and corduroy
 Lesser Slave Lake to Peace River Crossing. Clearing and grubbing road
 Fort Assiniboine to Lesser Slave Lake Exploration work by inspectors
 Mirror Landing to Sota Landing Culverts and clearing.
 Battle River Valley from Burland bridge, section 8, township 46, range 20, west of the 4th meridian. Reducing and widening grades, and building culverts.
 Spring Lake to Hastings Coulee, through townships 42 and 43, range 16, west of the 4th meridian Culverts, brushing and grading
 East and west of Camrose, township line between 46 and 47, range 20, west of the 4th meridian Grading and ditching
 South from Holden, from section 34, township 48, range 16, west of the 4th meridian. Ditching and grading.
 To Duhamel Bridge, in River Lot 16, township 46, range 21, west of the 4th meridian Grading side hill
 South of Bawlf, in township 45, range 18, west of the 4th meridian Improving road, brushing, grading, ditching, &c
 Through New Norway Settlement, between sections 7 and 18, 8 and 17, township 45, range 21, west of the 4th meridian Corduroy, grading and four culverts.
 Range line, township 48, ranges 18 and 19, west of the 4th meridian. Clearing, culverts and grading
 From the north-east of section 7, to the north-east of section 12, township 50, range 20, west of the 4th meridian Cutting down hills and filling sloughs
 North of section 25, township 50, range 20, west of the 4th meridian Culvert and grade.
 North of Camrose, between sections 1 and 2, township 47, range 20, west of the 4th meridian Grading
 Between sections 19 and 30, township 43, range 19, west of the 4th meridian. Grading sloughs

Between sections 25 and 26, township 43, range 21, west of the 4th meridian
 Grading sloughs
 Between sections 20 and 21, township 44, range 21, west of the 4th meridian
 One 12 ft span and grading
 Trail from Cardston to Beazer. Culverts and grading
 Road from Stirling to Magrath Improvement.
 Between sections 24 and 25, township 5, range 22, west of the 4th meridian
 Culverts and side hill cutting.
 Between sections 9 and 16, 8 and 17, township 5, range 22, west of the 4th meridian
 Culverts and grading
 Between sections 7 and 18, township 5, range 22, west of the 4th meridian
 Ditching, culverts and grading
 Between sections 22 and 23, township 5, range 22, west of the 4th meridian.
 Culvert and grade
 Between sections 27 and 28, township 5, range 22, west of the 4th meridian.
 Culvert and grade
 Between sections 7 and 8, township 5, range 21, west of the 4th meridian.
 Grading in coulee
 Between sections 32 and 29, township 4, range 23, west of the 4th meridian.
 Culverts and grading.
 Between sections 13 and 18, township 1, ranges 26 and 27, west of the 4th meridian
 Culverts and grading
 In section 14, township 1, range 27, west of the 4th meridian Repairing grade
 Between Cardston and Boundary Creek, sections 3 and 4, township 2, range 26, west of the 4th meridian, and sections 4 and 33, townships 2 and 1, range 26, west of the 4th meridian and sections 28 and 29, township 1, range 26, west of the 4th meridian. Culverts and grading
 Township line between 2 and 3, range 27, west of the 4th meridian Culverts and grading
 In section 6, township 2, range 24, west of the 4th meridian Side hill grade
 On section 32, township 2, range 24, west of the 4th meridian Culverts and side hill grading
 Between sections 14 and 15, township 3, range 24, west of the 4th meridian side hill cut
 In section 32, township 2, range 25, west of the 4th meridian. Culverts, ditching and grading
 Between sections 2 and 3, township 4, range 17, west of the 4th meridian.
 Filling slough
 Between sections 15 and 16, township 4, range 17, west of the 4th meridian
 Culvert and grading
 Macleod to Boundary Trail, in section 23, township 3, range 25, west of the 4th meridian. Repairing washout and side hill grade
 Between sections 9 and 16, township 3, range 24, west of the 4th meridian.
 Grading
 Between sections 27 and 28, township 2, range 25, west of the 4th meridian.
 Grading
 Taylorsville to St Mary's Bridge road, between sections 21 and 28, 19 and 30, township 1, range 24, west of the 4th meridian Grading
 Between sections 24 and 25, township 1, range 24, west of the 4th meridian.
 Large culvert and side hill cut.
 In sections 13 and 24, township 2, range 26, west of the 4th meridian Culverts, ditching and grading.
 Between sections 24 and 25, township 3, range 25, west of the 4th meridian
 Repairing grade
 Between sections 23 and 24, township 3, range 25, west of the 4th meridian
 Grading
 Between sections 19 and 20, township 3, range 24, west of the 4th meridian.
 Grading
 Between sections 20 and 29, township 3, range 24, west of the 4th meridian
 Culvert and grading
 Between sections 31 and 36, 25 and 30, 19 and 24, township 1, ranges 23 and 24, west of the 4th meridian. Large culvert and grading
 Between sections 12 and 13, 10 and 15, township 1, range 24, west of the 4th meridian. Ditching and grading.
 Between sections 10 and 11, township 1, range 24, west of the 4th meridian.
 Large culvert and grading
 Between sections 15 and 22, 16 and 21, 17 and 20, township 2, range 27, west of the 4th meridian Two culverts and grading.
 Cardston to Mountain View, road between sections 19 and 20, 27 and 28, 27 and 34, township 2, range 27, west of the 4th meridian. Culverts and grading.

Between sections 24 and 25, township 2, range 28, west of the 4th meridian. Three culverts and grading.

Between sections 19 and 24, township 2, ranges 27 and 28, west of the 4th meridian. Two culverts and grading.

Between sections 13 and 24, township 2, range 28, west of the 4th meridian. Grading

Between sections 3 and 4, township 3, range 24, west of the 4th meridian. Culverts and grading

Between sections 2 and 3, township 1, range 26, west of the 4th meridian. Small bridge and grading.

Range line between sections 13 and 18, 19 and 24, 25 and 30, township 1, ranges 25 and 26, west of the 4th meridian. Culverts and grading

On section 12, township 1, range 26, west of the 4th meridian. Draining lake on road allowance

Between sections 19 and 30, township 2, range 24, west of the 4th meridian. Grading

Between sections 21 and 28, township 2, range 25, west of the 4th meridian. Grading.

Between sections 10 and 15, township 2, range 25, west of the 4th meridian. Grading and culverts.

Between sections 21 and 22, township 2, range 25, west of the 4th meridian. Culvert and grade

Between sections 14 and 23, township 2, range 25, west of the 4th meridian. Culvert and grade.

Between sections 2 and 3, township 5, range 23, west of the 4th meridian. Draining slough, culverts and grading

Between sections 9 and 16, township 4, range 16, west of the 4th meridian. Ditching, and digging stone

Between sections 28 and 29, township 2, range 24, west of the 4th meridian. Grading side hills on each side of Willow Creek bridge

Along south fork of Trout Creek. Repairing culverts

Road north from steel bridge at Macleod, section 13, township 9, range 26, west of the 4th meridian Improving

Road up Beaver Creek, Macleod to Porcupine Hills, through township 9, range 27, and township 9, range 28, west of the 4th meridian Culverts and grading

From north of section 19, to section 24, township 12, range 24, west of the 4th meridian. Culverts and side hill grading.

Section 1, township 12, range 29, west of the 4th meridian Filling washout.

Macleod-Lyndon trail Grading up coulee.

Between sections 25 and 26, township 12, range 23, west of the 4th meridian. Culverts and grading

Blind line sections 13 to 18, township 28, range 4, west of the 5th meridian. Clearing, culverts and grading

Calgary-Morleyville trail in township 26, range 4, west of the 5th meridian and west of Ghost Pine River Culverts, clearing and grading.

Between sections 20 and 29, 19 and 30, township 28, range 4, west of the 5th meridian Clearing, culverts and grading.

Between sections 8 and 9, 16 and 17, township 29, range 4, west of the 5th meridian Clearing, culverts and grading

Through sections 29 and 31, township 26, range 5, west of the 5th meridian. Culverts and grading

West of Dog Pound Creek, sections 21 and 22, 27 and 28, 33 and 34, township 28, range 4, west of the 5th meridian Building culverts and grading.

Township line and diversion between townships 28 and 29, range 3, west of the 5th meridian Clearing, culverts and grading

Between sections 9 and 16, 10 and 15, township 28, range 3, west of the 5th meridian Culverts and grading

Between sections 4 and 5, 4 and 9, 9 and 10, 10 and 11, township 30, range 5, west of the 5th meridian Log bridge, 2 miles of clearing, and grading

Road west of Airdrie, between sections 9 and 10, 9 and 16, township 27, range 2, west of the 5th meridian Grading and culverts

Through sections 28, 29 and 30, township 29, range 5, west of the 5th meridian to sawmill Brushing, culverts and grading

Between sections 10 and 11, 14 and 15, 22 and 23, north-west of section 23, and between 24 and 25, 23 and 24, 25 and 26, in township 28, range 2, west of the 5th meridian. Brushing, grading and 13 culverts.

Between sections 32 and 33, township 27, range 3, west of the 5th meridian, and sections 8 and 9, 4 and 5, township 28, range 3, west of the 5th meridian Clearing 2 miles, 3 large culverts, and grading.

Between sections 2 and 35, townships 26 and 27, range 5, west of the 5th meridian Culverts and grading

Between sections 24 and 25, township 29, range 2, west of the 5th meridian.
 Culverts and grading
 Between sections 10 and 15, township 29, range 2, west of the 5th meridian.
 Cutting down hill
 Road from Knee Hill to Calgary Grading
 Between sections 7 and 18, township 29, range 28, west of the 4th meridian
 Grading approaches to bridge.
 Gleichen-Rosebud trail Culverts and grading
 Between sections 29 and 30, township 22, range 22, west of the 4th meridian.
 Box culverts and grading
 Calgary-Beaver Dam trail, on sections 3, 9 and 10, township 25, range 1, west of the 5th meridian. Grading and improving road.
 Between sections 31 and 32, township 26, range 1, west of the 5th meridian
 Culverts and grading.
 Road from Langdon to Strathmore, between sections 10 and 15, township 24, range 25, west of the 4th meridian Cutting hill and grading sloughs
 Road from Calgary to Knee Hill Culverts, filling sloughs, grading and improving road
 Between sections 23 and 24, 23 and 26, township 26, range 2, west of the 5th meridian Improvement
 Between sections 16 and 21, township 25, range 1, west of the 5th meridian.
 Culverts and grading.
 Between sections 11 and 12, township 26, range 1, west of the 5th meridian.
 Grading (Reimbursed by L.I.D.)
 Between sections 25 and 26, township 26, range 1, west of the 5th meridian
 Culvert material
 Section 13, township 17, range 2, west of the 5th meridian Building sub-way.
 Between sections 2 and 3, township 18, range 28, west of the 4th meridian.
 Diversion, cutting and grading
 Road east of Innisfail, between sections 24 and 25, 19 and 30, township 35, ranges 26 and 27, west of the 4th meridian Clearing, culverts and grading
 Road west of Innisfail, Diversion in section 25, township 35, range 1, west of the 5th meridian Clearing, ditching, culverts and grading
 Innisfail to Raven P.O., through township 36, ranges 2, 3 and 4, west of the 5th meridian Ditching, culverts and grading
 Road south of Pine Lake, between sections 25 and 26, 35 and 36, township 35, range 25, west of the 4th meridian Draining slough, culverts and grading
 South of section 3, township 35, range 27, west of the 4th meridian Laying brush, culverts and grading
 Between sections 7 and 8, 17 and 18, township 35, range 27, west of the 4th meridian. Clearing, corduroy and grading.
 Between sections 33 and 4, townships 36 and 37, range 2, west of the 5th meridian Clearing and grading
 Penhold east to Edwell, between sections 31 and 6, townships 36 and 37, range 27, west of the 4th meridian Penhold slough, 3 culverts and grading
 Through section 31, township 35, range 28, west of the 4th meridian Grubbing road and grading
 Between sections 25 and 30, 36 and 31, township 40, ranges 25 and 26, west of the 4th meridian Covering brush culverts and grading
 Between sections 5 and 6, 7 and 8, township 41, range 27, west of the 4th meridian Corduroying and grading
 Between sections 8 and 17, 9 and 16, 10 and 15, 11 and 14, 12 and 13 township 41, range 3, west of the 5th meridian Culverts and corduroying
 Between sections 22 and 27, 23 and 26, township 41, range 26, west of the 4th meridian. Culverts, corduroy and grading
 Between sections 11 and 14, 10 and 15, 12 and 13, township 40, range 2, west of the 5th meridian, and sections 7 and 18, township 40, range 1, west of the 5th meridian Laying brush, culverts and grading.
 Between sections 11 and 14, 14 and 15, township 41, range 26, west of the 4th meridian Laying brush, culverts, grading and ditching
 Between sections 1 and 2, 11 and 12, township 41, range 28, west of the 4th meridian Clearing, corduroy and grading
 North of Alix Clearing, brushing and grading
 Between sections 22 and 23, 14 and 15, 14 and 11, 13 and 12, township 40, range 26, west of the 4th meridian. Ditching, clearing, culverts and grading
 Between sections 31 and 36, township 41, ranges 26 and 27, west of the 4th meridian Culverts and grading
 Between townships 39 and 40, ranges 1 and 2, west of the 5th meridian Culverts and grading

Between sections 22 and 23, township 41, range 22, west of the 4th meridian.
 Corduroy, ditching and grading
 Between sections 28 and 29, township 39, range 28, west of the 4th meridian.
 Grading
 Between sections 27 and 28, township 40, range 27, west of the 4th meridian.
 Corduroy and grade
 Between sections 33 and 34, township 39, range 26, west of the 4th meridian.
 Laying brush, ditching and grading
 West of Forshee, township line between 41 and 42, ranges 2, 3 and 4, west of the 5th meridian. Corduroy, clearing and culverts
 Between sections 7 and 18, township 41, range 24, and sections 13 and 24, township 41, range 25, west of the 4th meridian. Ditching, culverts and grading
 Township line between 38 and 39, ranges 23 and 24, west of the 4th meridian.
 Cutting brush and grading.
 West of Lacombe. Split log drag work
 North of section 11, township 40, range 22, west of the 4th meridian. Corduroy, brush and grading
 On section 5, township 39, range 23, west of the 4th meridian. Building sub-way
 Bentley to Medicine River, through township 40, range 4, west of the 5th meridian. Corduroy, clearing culverts and grading.
 Between sections 3 and 4, 9 and 10, township 40, range 26, west of the 4th meridian. Large culvert and grading
 Road north of Entwistle, between townships 55 and 56, ranges 7 and 8, west of the 5th meridian. Cutting out and improving road.
 Lac Ste Anne to Island Lake, between sections 29 and 30, and 19 and 30, to township 53, range 7, west of the 5th meridian, and west into town of Entwistle.
 Cutting, clearing and improving road
 Lac Ste Anne to Pa'dle River, through township 56, ranges 6 and 7, west of the 5th meridian. Cutting road and corduroying
 Lac Ste Anne to Wabamun, township 53, range 3 and 4, west of the 5th meridian. Corduroy, culverts and improving road
 Wabamun to Lobstick Settlement and Seba, in township 53, range 6, west of the 5th meridian. Cutting road, corduroy and grading
 St. Albert to Lac Ste Anne trail, in township 55, range 1, west of the 5th meridian. Improvement
 Ohrnville to Telfordville, blind line through township 49, ranges 1 and 2, west of the 5th meridian. Ditching, covering corduroy and grading
 Leduc to 5th meridian, blind line through township 49, ranges 26 and 27, west of the 4th meridian. Covering brush, ditching and grading
 Millet to Bonnie Glen, road between sections 25 and 36, township 47, range 26 west of the 4th meridian. Grading and ditching
 Between sections 3 and 4, 28 and 29, 34 and 35, township 50, range 25, west of the 4th meridian. Corduroy, brush laid, culverts and grading
 Through sections 2 and 11, township 50, range 27, west of the 4th meridian. Clearing, ditching, culverts and grading
 North of township 48, range 27, between Buford and Government Creamery. Covering brush, ditching, culverts and grading
 North of sections 8, 9, 10, 11 and 12, township 50, range 26, west of the 4th meridian. Corduroy, brush, culverts and grading.
 South of sections 4, 5 and 6, township 49, range 26, west of the 4th meridian. Grubbing and grading
 Between sections 31 and 36, township 49, range 26 and 27, west of the 4th meridian. Culverts, ditching and grading
 Millet-Hay Lake road through townships 48, ranges 23 and 24, west of the 4th meridian. Clearing, corduroy and grading
 C & E Trail, Millet to Leduc. Covering corduroy and brush
 East of Leduc towards Hay Lake. Corduroy, culverts and grading
 Macleod-Lethbridge trail, in sections 1 and 2, township 9, range 21, west of the 4th meridian. Across Belly River Flats. Improvement
 Road to Taber ferry, township 10, ranges 16 and 17, west of the 4th meridian. Grading.
 Between sections 2 and 35, townships 8 and 9, range 21, west of the 4th meridian. Grading
 Road to Lethbridge and Coaldale, sections 10 and 15, 11 and 14, 12 and 13, township 9, range 21, west of the 4th meridian, and sections 7 and 18, 8 and 17, 9 and 16, township 9, range 20, west of the 4th meridian. Culverts and grading
 Road south from Gleichen, through Blackfoot Reserve. Cutting down hills and grading
 Up north bank of Chin Coulee, between sections 30 and 31, township 7, range 16, west of the 4th meridian. Grading

South of Grassy Lake, between sections 3 and 4, 9 and 10, township 10, range 13, west of the 4th meridian. Culverts and grading.

Between sections 3 and 34, townships 8 and 9, range 19, west of the 4th meridian. Culverts and grading.

Between sections 13 and 14, township 9, range 21, west of the 4th meridian. Culvert and grading.

Between sections 13 and 18, township 9, range 20 and 21, west of the 4th meridian. Culvert and grading.

Between sections 2 and 3, township 6, range 22, west of the 4th meridian. Culvert and grading.

Between sections 11 and 12, township 6, range 22, west of the 4th meridian. Culvert and grading.

Stirling to Railway Station, between sections 28 and 29, township 6, range 19, west of the 4th meridian. Culverts and grading.

Between sections 19 and 30, township 6, range 19, west of the 4th meridian. Culvert and grade.

Lethbridge-Cardston trail, on section 17, and between sections 20 and 21, township 7, range 21, west of the 4th meridian. Culvert and grading.

Between sections 36 and 27, township 6, range 21, west of the 4th meridian. Grading.

Carmangay to Coal Mine, between sections 1 and 6, township 14, ranges 22 and 23, west of the 4th meridian. Cutting sandhills and grading potholes.

Township 13, ranges 21 and 22, west of the 4th meridian. Grading.

Between sections 25 and 26, township 7, range 26, west of the 4th meridian. Cutting down hill.

In section 17, between sections 8 and 17, township 9, range 25, west of the 4th meridian. Culverts and grading.

In section 6, township 5, range 26, west of the 4th meridian. Grading.

Macleod-Lethbridge trail, section 17, township 9, range 25, west of the 4th meridian. Grading.

Through section 31, township 12, range 5, west of the 4th meridian, and section 6, township 13, range 5, west of the 4th meridian. Culverts and side hill grading.

Irvine-Josephsburg trail in section 6, township 11, range 2, west of the 4th meridian. Culverts, ditching and grading.

Between sections 13 and 18, township 13, ranges 5 and 4, west of the 4th meridian. Culvert and grading.

Between sections 33 and 4, townships 9 and 10, range 4, west of the 4th meridian. Culvert and grading.

Elkwater Lake-Eagle Butte trail, sections 7 and 18, and on section 18, township 8, range 3, west of the 4th meridian. Culverts and grading.

Between sections 23 and 24, 25 and 26, township 7, range 3, west of the 4th meridian. Culverts and grading.

Between sections 22 and 23, township 7, range 3, west of the 4th meridian. Large culvert and grading.

Between sections 25 and 30, township 7, ranges 2 and 3, west of the 4th meridian. Culverts and grading.

In section 10, township 10, range 4, west of the 4th meridian. Subway and grading.

Elkwater and Medicine Lodge trail, in sections 16, 17 and 18, township 8, range 3, west of the 4th meridian. Culverts and grading.

In section 16, township 9, range 2, west of the 4th meridian. Subway and grading.

Between sections 14 and 15, township 12, range 6, west of the 4th meridian. Side hill grading.

Medicine Hat to Stair. Clearing road of stone.

Medicine Hat to Dunmore. Grading hill.

From Irvine to Crossing of Post Road. Grading.

West of section 1, township 16, range 26, west of the 4th meridian. Culvert and grading.

Between sections 21 and 28, township 14, range 28, west of the 4th meridian. Grading and culverts.

Between sections 28 and 29, township 14, range 28, west of the 4th meridian. Culvert and grading.

Parkland to Coal Mines trail in sections 12 and 14, township 15, range 26, west of the 4th meridian. Side hill cut and grading.

Between sections 16 and 17, 28 and 29, township 23, range 1, west of the 5th meridian. Culverts and grading.

Calgary-Millarville trail, through township 21, range 2, west of the 5th meridian. Culverts and grading.

In sections 7, 8, 9 and 10, township 21, range 3, west of the 5th meridian. Subway, side hill cut and grading.

In south-west quarter of section 33, township 21, range 3, west of the 5th meridian. Building subway and grading.

Calgary-Macleod trail, between sections 21 and 22, 22 and 27, township 23, range 1, west of the 5th meridian. Culvert and grade

Calgary-Morleyville trail, in township 24, ranges 1 and 2, west of the 5th meridian. Side hill cutting and grading

Old Mission trail, through township 24, ranges 2, 3 and 4, west of the 5th meridian. Subway, small bridge, culverts and grading

Section 22, township 20, range 3, west of the 5th meridian. Building culvert.

Lyndon-Okotoks trail, on section 12, 11, 2 and 3, township 20, range 3, west of the 5th meridian. One 12 ft. span, culverts and subway, cutting brush and grading.

Road to bridge, through township 34, range 5, west of the 5th meridian. Clearing out road.

Between townships 33 and 34, range 25, west of the 4th meridian. Ditching and grading.

Between sections 11 and 12, township 32, range 27, west of the 4th meridian. Culverts and filling sloughs.

North of sections 19, 20, 21, 22, 23 and 24, township 34, range 28, west of the 4th meridian. Clearing, ditching, culverts and grading.

East of Lone Pine School, between sections 24 and 25, township 33, range 29, west of the 4th meridian. Culverts and covering brush.

Diversion north of section 20, township 33, range 27, west of the 4th meridian. Grading.

Between sections 23 and 24, township 34, range 4, west of the 5th meridian. Clearing, culverts and grading

Between sections 1 and 6, township 58, ranges 14 and 15, west of the 4th meridian. Clearing, corduroying and culverts.

St. Paul de Metis to St. Edward in township 58, ranges 8 and 9, west of the 4th meridian. Corduroying and grading.

St. Paul de Metis to Moose Lake. Corduroy, log bridges and grading.

St. Paul de Metis to St. Vincent, in townships 58 and 59, range 9, west of the 4th meridian. Small bridges, culverts and grading.

St. Paul de Metis to Brosseau through township 57, range 10, west of the 4th Meridian. Culverts and grading

North Victoria trail, in township 58, range 17, and between sections 3 and 4, township 59, range 15, west of the 4th meridian. Clearing, culverts and grading.

Victoria to Lac La Biche, via Whitefish. Culverts, grubbing and grading.

In township 59, between ranges 13 and 14, west of the 4th meridian. Culverts, clearing and grading.

Road north from Riviere Qui Barre, south from section 4, township 60, range 26, west of the 4th meridian. Cutting out and improvement.

South of sections 16, 17, 18, township 59, range 25, west of the 4th meridian. Corduroy, culvert and grading

5th meridian, east of township 60, range 1, west of the 5th meridian. Clearing, corduroy and culverts

Range line, township 59, ranges 26 and 27, west of the 4th meridian. Clearing, corduroy and covering.

Road north of Edison, between sections 1 and 2, township 60, range 26, west of the 4th meridian. Cutting and hauling corduroy.

Between sections 9 and 16, 10 and 15, 22 and 27, township 57, range 2, west of the 5th meridian. Corduroying.

From base line, north and west to Belvedere, through township 57, range 2, west of the 5th meridian. Brushing, corduroy and grading.

Between sections 9 and 16, township 58, range 3, west of the 5th meridian. Clearing, corduroy, and culverts.

Between sections 1 and 36, townships 56 and 57, range 2, west of the 5th meridian. Laying brush and culverts.

Between sections 24 and 25, township 59, range 25, west of the 4th meridian. Corduroying.

Near Shultz' Corner, between townships 59 and 60, range 26, west of the 4th meridian. Filling mud hole

5th meridian. Hazelbluff Post Office to Hazelbluff School, between townships 59 and 60. Culverts, brushing and grubbing.

From Pembina Ferry south, through townships 58 and 59, range 2, west of the 5th meridian. Clearing, grubbing, culverts and grading

Between sections 9 and 10, 9 and 16, township 58, range 3, west of the 5th meridian. Ditching and grading.

Base line road, between townships 56 and 57, range 1, west of the 5th meridian. Culverts and grading

Lesser Slave Lake to Peace River Crossing. Clearing, and improving road
 Sturgeon Lake to Grand Prairie Exploring road
 Peace River to Grand Prairie Clearing and improving
 Peace River Landing to Spirit River Clearing and improving
 Diversion in the north-west quarter of section 7, township 5, range 28, west of
 the 4th meridian Subway and grading
 "The Gap" road, east of sections 1, 12, 13 and 24, in township 4, range 29, west
 of the 4th meridian Culverts and grading
 Pincher Creek to Oil City, in township 4, range 29, west of the 4th meridian
 Culverts and grading
 Pincher Creek to Pincher City Cutting down hills, culverts and grading
 Between sections 8 and 9, township 6, range 1, west of the 5th meridian Build-
 ing culvert, straightening creek and grading
 In section 1, township 7, range 1, west of the 5th meridian. Cutting down
 hill.
 West of Forshee, township line between 41 and 42, ranges 1, 2 and 3, west of
 the 5th meridian. Clearing, grubbing and grading.
 C & E. trail. Grading
 Main road west of Ponoka, between townships 42 and 43, ranges 25 and 26,
 west of the 4th meridian. Ditching, corduroy, culverts and grading
 Between sections 3 and 33, townships 43 and 42, range 27, west of the 4th
 meridian Clearing, grubbing, culverts and grading.
 Between sections 5 and 6, township 42, range 25, west of the 4th meridian.
 South of Ponoka Clearing, grubbing and grading
 Road from Chesterwold to Fairbank, between sections 1 and 2, 11 and 12,
 21 and 28, township 44, range 27, west of the 4th meridian. Culverts, ditching
 and grading
 Between sections 3 and 4, 9 and 10, township 43, range 2, west of the 5th meri-
 dian Grading
 From Ponoka to proposed bridge over the Blindman River, through town-
 ship 43, range 26, west of the 4th meridian, and township 43, range 1, west of the
 5th meridian Opening up road, brushing, ditching, culverts and grading
 Sylvan Lake east to Red Deer. Correction line between townships 38 and 39,
 range 1, west of the 5th meridian, and townships 38 and 39, range 28, west of the
 4th meridian Culverts, corduroy and grading.
 Sylvan Lake, west to Medicine River. Correction line between townships 38
 and 39, range 2, west of the 5th meridian. Clearing, culverts and grading
 Road between Clearwater and Prairie River bridges, between townships 37
 and 38, range 7, west of the 5th meridian Large culverts, clearing and grading.
 South of section 4, township 38, range 1, west of the 5th meridian Cordu-
 roying and grading
 Red Deer to Evarts, through township 38, ranges 1 and 2, west of the 5th meri-
 dian. Ditching, culverts, and grading
 Road west of Evarts, between sections 12 and 13, 7 and 18, township 38, range
 3, west of the 5th meridian Clearing, culverts and corduroy.
 In section 18, township 38, range 25, west of the 4th meridian. Grading to
 ford.
 Leslieville to Saskatchewan River, on section 31, township 39, range 6, west of
 the 5th meridian Corduroying and grading
 Township line between 37 and 38, range 23, west of the 4th meridian, and
 between sections 1 and 36, townships 37 and 38, range 22, west of the 4th meridian
 Opening road, culverts and grading
 On section 27, township 39, range 3, west of the 4th meridian. Cutting brush,
 grading and large culvert.
 Between sections 15 and 16, township 38, range 27, west of the 4th meridian
 Culverts and grading
 Road east of Penhold, between sections 6 and 31, townships 36 and 37, range
 27, west of the 4th meridian Improvement, brushing and grading across sloughs.
 Between townships 38 and 39, ranges 23 and 24, west of the 4th meridian.
 Cutting brush, grubbing and grading.
 Road west of the Blindman River, between townships 39 and 40, ranges 1 and
 2, west of the 5th meridian Culverts and grading.
 Between sections 33 and 28, 34 and 27, township 37, range 25, west of the 4th
 meridian Clearing and grading
 Surveyed road from Frank through Blairmore to Crow's Nest Lake. Clear-
 ing, building culverts, and improving road.
 Road north from Riviere Qui Barre Taking out stumps.
 St. Albert to Morinville, through township 54, range 25, west of the 4th meridian.
 Culverts and grading.
 St. Emile to Edison, between sections 20 and 21, 28 and 29, 30 and 31, town-
 ship 58, range 25, west of the 4th meridian. Corduroying and grading.

Correction line between townships 54 and 55, range 25, west of the 4th meridian. Culvert and grade

Independence to Riviere Qui Barre, between township 56, ranges 26 and 27, west of the 4th meridian. Culverts, corduroying and grading.

Between sections 11 and 12, 13 and 14, township 55, range 25, west of the 4th meridian. Covering brush and grading

Between townships 55 and 56, range 25, west of the 4th meridian. Grading

St. Albert to Lac Ste. Anne trail, between sections 13 and 18, township 54, range 26, west of the 4th meridian. Corduroy and grading.

Between sections 9 and 16, township 55, range 27, west of the 4th meridian. Clearing and grading

Between sections 2 and 3, township 57, range 24, west of the 4th meridian. Covering corduroy, ditching and grading

Between sections 13 and 18, township 55, ranges 25 and 26, west of the 4th meridian. Grading

River road east of St. Albert. Culvert and grading

Between sections 2 and 3, township 56, range 25, west of the 4th meridian. Grading and culvert

Between sections 3 and 4, 9 and 10, 15 and 16, township 56, range 25, west of the 4th meridian. Culvert and grading,

In section 5, township 55, range 26, west of the 4th meridian. Ditching and grading

North of the south-east of section 3, township 57, range 27, west of the 4th meridian. Corduroy and grading

Sedgewick, south to Battle River. Diversion between sections 4 and 5, township 42, range 12, west of the 4th meridian, and in sections 3 and 10, township 39, range 12, west of the 4th meridian. Ditching and grading

Between sections 2 and 35, townships 43 and 42, range 12, west of the 4th meridian. Grading

Road south of Strome, through townships 42 and 43, range 15, west of the 4th meridian. Improving road, grading and culverts.

Road south of Killam, between sections 20 and 21, township 42, range 13, west of the 4th meridian. Grading and brushing slough.

Road across west end of Goose Lake. Grading and brushing

Through sections 1, 2, 3 and 10, township 39, range 12, and section 6, township 39, range 11, west of the 4th meridian. Clearing, grubbing, side hill grading, culverts and fills in Battle River Valley to connect with the new steel bridge on section 3, township 39, range 12, west of the 4th meridian

Between sections 22 and 23, township 38, range 12, west of the 4th meridian. to French Creek bridge. Grading

14th Base line, in township 53, range 2, west of the 5th meridian. Grading and covering corduroy

Between sections 13 and 18, township 51, ranges 25 and 26, west of the 4th meridian, and between sections 4 and 9, 5 and 8, 6 and 7, township 51, range 26, west of the 4th meridian. Grubbing, clearing, grading and culverts

In sections 26 and 35, township 52, range 25, west of the 4th meridian. Ditching and grading

From Lac Ste. Anne trail to Wabamun trail, between sections 1 and 6, 7 and 12, township 53, ranges 1 and 2, west of the 5th meridian. Ditching and grading.

Edmonton-St. Albert trail. Grading

Inga and Mewassin road, between townships 51 and 52, range 2, west of the 5th meridian. Clearing, culverts and grading.

West of Mewassin, between townships 51 and 52, range 3, west of the 5th meridian. Corduroying and grading.

Between sections 12 and 13, 17 and 18, 19 and 20, township 53, range 1, west of the 5th meridian. Culverts, corduroy and grading.

Between sections 26 and 35, township 51, range 1, west of the 5th meridian. Clearing and corduroying

Between sections 7 and 18, 8 and 17, township 53, range 25, west of the 4th meridian. Grading and ditching.

Between sections 17 and 20, township 51, range 27, west of the 4th meridian. Corduroy and grading

On correction line between sections 2 and 35, townships 59 and 58, range 24, west of the 4th meridian. Corduroy, culverts and grading

Between sections 5 and 6, 19 and 20, township 57, range 23, west of the 4th meridian. Corduroy, culverts and grading.

Between sections 20 and 29, township 58, range 23, west of the 4th meridian. Cutting and laying corduroy.

Between townships 57, ranges 22 and 23, west of the 4th meridian. Corduroy and grading

In section 21, township 66, range 22, west of the 4th meridian. Grading hill.

Edmonton-Fort Saskatchewan trail. Tile culverts and grading

Between sections 32 and 33, township 56, range 23, west of the 4th meridian. Corduroy, brush and grading.

Between sections 27 and 28, township 59, range 24, west of the 4th meridian. Culverts, ditching and grading

Correction line between townships 54 and 55, ranges 23 and 24, west of the 4th meridian. Concrete culverts and grading.

Athabasca Landing to Lac La Biche road. Grading hill.

Road north from Sturgeon River bridge between sections 3 and 4, 9 and 10, township 58, range 22, west of the 4th meridian and sections 16 and 17, township 56, range 22, west of the 4th meridian. Ditching, culverts and grading

Edmonton-Athabasca Landing trail, Halfway Lakes to Stoney Creek Corduroy, brush, clearing and grading

Road from Lamoureux to Sturgeon Bridge in township 55, range 22, west of the 4th meridian. Grading,

Between sections 21 and 22, township 53, range 24, west of the 4th meridian. Ditching.

Between sections 13 and 14, township 55, range 23, west of the 4th meridian. and between sections 11 and 12, township 56, range 23, west of the 4th meridian. Culverts and grading

Between sections 7 and 8, township 56, range 24, west of the 4th meridian Ditching and grading.

Between townships 55 and 56, range 24, west of the 4th meridian. Ditching and grading.

Between sections 11 and 12, 13 and 14, township 59, range 20, west of the 4th meridian. Cutting road, culverts and grading.

Between sections 1 and 6, township 59, ranges 18 and 19, west of the 4th meridian. Grading.

Between sections 1 and 2, township 59, range 19, west of the 4th meridian. Grubbing and grading.

Sunnyside to Coal Mines, on section 15, township 55, range 24, west of the 4th meridian. Tile culverts and grading

Between sections 28 and 29, 32 and 33, township 51, range 25, west of the 4th meridian. Clearing, ditching, culverts and grading

Between sections 3 and 34, townships 51 and 52, range 24, west of the 4th meridian Culverts, ditching and grading

Between sections 15 and 16, 21 and 22, township 51, range 22, west of the 4th meridian Culvert, corduroy, and grading

Between sections 22 and 27, township 52, range 23, west of the 4th meridian. Corduroy and brush.

Between sections 19 and 20, township 52, range 23, west of the 4th meridian. Corduroy, culvert and grading.

Between sections 9 and 16, 10 and 15, township 51, range 23, west of the 4th meridian (Hay Lake trail). Brushing, culvert and grading.

Between sections 23 and 26, township 52, range 22, west of the 4th meridian. Culverts and corduroying

Between sections 13 and 14, 23 and 24, township 52, range 22, west of the 4th meridian Corduroying and grading

Between sections 7 and 18, to sections 12 and 13, township 51, range 21, west of the 4th meridian, and in township 51, range 20, west of the 4th meridian Culverts and grading, and cutting road ahead of telephone gang.

Coney Island trail, from section 36, township 51, range 23, west of the 4th meridian to Cooking Lake Clearing, culverts and grading.

Road up Dowler Hill. Grading and ditching.

Between sections 7 and 12, 1 and 6, township 53, ranges 22 and 23, west of the 4th meridian. Grading and ditching.

Between sections 4 and 5, 8 and 9, 16 and 17, township 52, range 24, west of the 4th meridian. Grubbing and grading

Between sections 15 and 16, township 53, range 22, west of the 4th meridian. Ditching and grading

Between sections 13 and 14, 23 and 24, township 51, range 22, west of the 4th meridian. Brushing, grubbing and burning brush.

Between sections 12 and 13, township 51, range 22, west of the 4th meridian. Log bridge, clearing, grubbing and grading.

Between sections 20 and 29, township 53, range 21, west of the 4th meridian. Culverts, grubbing and grading

Mayville Flats, townships 38 and 39, range 18, west of the 4th meridian. Ditching, grading and culverts

Higgins Flats, east of Stettler, on correction line. Townships 38 and 39, ranges 16 and 17, west of the 4th meridian. Grading, ditching, and culverts.

Nevis to Buffalo Lake road through township 39, between ranges 21 and 22, west of the 4th meridian. Brushing, culverts and grading.

From north-east of section 34, township 38, range 22, west of the 4th meridian, south to the south-east of section 22, and east to section 14, to the range line, through above township. Grading and culverts.

Erskine to Buffalo Lake, townships 39 and 40, between ranges 20 and 21, west of the 4th meridian. Grading and culverts.

Between sections 1 and 2, township 40, range 16, west of the 4th meridian, and between sections 25 and 36, township 39, range 16, west of the 4th meridian, and on section 11, township 40, range 16, west of the 4th meridian. Grading and culverts.

On diversion in section 23, township 39, range 15, west of the 4th meridian. Brushing, cutting hills and culverts.

Road to Wigmore ferry, on section 35, township 29, range 21, west of the 4th meridian. Ditching and cutting hill.

Between sections 17 and 18, township 38, range 19, west of the 4th meridian. Grading.

Road west of Stettler, on section 6, township 39, range 19, west of the 4th meridian. Grading to bridge.

Between sections 19 and 30, 20 and 29, township 56, range 18, west of the 4th meridian. Corduroy and grading.

North of Brueclerheim, between sections 10 and 11, 14 and 15, 22 and 23, township 56, range 20, west of the 4th meridian. Grubbing, culverts and grading.

Fort Saskatchewan-Victoria trail in River lots 5, 7 and 9, cutting right-of-way.

Between sections 3 and 34, 2 and 35, townships 57 and 56, range 20, west of the 4th meridian. Clearing, corduroying and grading.

Between sections 19 and 20, township 54, range 21, west of the 4th meridian. Corduroy and grading.

Between sections 8 and 17, 19 and 20, township 54, range 21, west of the 4th meridian. Culverts and grading.

Between sections 26 and 27, 22 and 23, township 55, range 21, west of the 4th meridian. Culverts, corduroying and grading.

Between sections 19 and 20, 29 and 30, township 56, range 16, west of the 4th meridian, and sections 25 and 30, township 56, ranges 16 and 17, west of the 4th meridian. Corduroy, culverts and grading.

Between sections 20 and 29, 19 and 30, township 54, range 20, west of the 4th meridian. Corduroy, culverts and grading.

Between sections 7 and 12, township 55, ranges 20 and 21, west of the 4th meridian. Corduroy and covering.

Between sections 3 and 34, 6 and 31, townships 55 and 56, range 18, west of the 4th meridian. Corduroy and grading.

In section 36, township 57, range 17, west of the 4th meridian. Culverts, ditching, and grading.

Between sections 1 and 2, township 58, range 16, west of the 4th meridian. Culvert, ditching and grading.

Between sections 32 and 5, townships 57 and 58, range 16, west of the 4th meridian. Clearing, corduroy and grading.

Between sections 1 and 2, 11 and 12, township 55, range 22, west of the 4th meridian. Clearing culverts and grading.

Between sections 22 and 27, township 55, range 20, west of the 4th meridian. Brushing, ditching and grading.

Between sections 16 and 17, and 20 and 21, township 56, range 17, west of the 4th meridian. Cutting brush and grading.

Between sections 35 and 2, townships 55 and 56, range 19, west of the 4th meridian. Grubbing, ditching and grading.

Between sections 13 and 18, township 57, ranges 19 and 20, west of the 4th meridian. Grading and ditching.

Road from Lamont to Star, between sections 20 and 21, 28 and 29, 32 and 33, township 55, range 19, west of the 4th meridian. Culverts, ditching and grading.

Between sections 5 and 6, 7 and 8, township 58, range 16, west of the 4th meridian, and sections 32 and 31, township 57, range 16, west of the 4th meridian. Corduroy and grading.

Vermilion Flat between sections 9 and 10, township 51, range 9, west of the 4th meridian. Grading.

Railway Crossing, at Ranfurley. Grading.

From Vermilion to St. Paul de Metis ferry. Small bridges and grading.

Road north-east of Vermilion between sections 35 and 36, township 51, range 6, west of the 4th meridian. Grading Vermilion bridge.

Road north of Innsmfree in township 53, ranges 10 and 11, west of the 4th meridian. Clearing, culverts and grading.

Between sections 28 and 33, township 47, range 12, west of the 4th meridian.
Improving road

Between sections 23 and 26, township 50, range 10, west of the 4th meridian.
Culverts, ditching and grading

Between sections 22 and 27, township 52, range 10, west of the 4th meridian
Culverts, side hill grading and repairing log bridge

East end of Birch Lake, in section 14, township 50, range 11, west of the 4th meridian Grading

South of Mannville, between Sections 31 and 36, township 49, ranges 8 and 9, west of the 4th meridian Clearing, grubbing and grading

North of Mannville, range line between townships 53, ranges 8 and 9, west of the 4th meridian Clearing, culverts and grading

North of Ranfurly, in township 51, range 12, west of the 4th meridian. Cutting brush and grading,

Gratton Coulee grade between sections 15 and 16, township 45, range 9, west of the 4th meridian. Laying brush and grading

Grades into Battle River Valley on section 32, township 46, range 6, west of the 4th meridian Side hill cutting

Between sections 9 and 10, township 49, range 11, west of the 4th meridian
Culvert and grading sloughs

Between sections 7 and 18, township 49, range 11, west of the 4th meridian
Culvert and hill cutting

Between sections 32 and 33, township 49, range 8, west of the 4th meridian
Large culvert and grading

Road from Dry Grass Lake to Lamont, between sections 29 and 30, township 53, range 19, west of the 4th meridian Corduroying sloughs

Vegreville south to Hurry between sections 31 and 36, 25 and 30, 24 and 25, township 51, ranges 14 and 15, west of the 4th meridian Corduroying, ditching and grading

Road from Tofield to Chipman, between townships 52, 53 and 54, ranges 18 and 19, west of the 4th meridian Brushing, culverts, and grading

Road from Vegreville to Warwick, slough between sections 1 and 2, township 54, range 14, west of the 4th meridian Culvert and grading

Between sections 20 and 21, 28 and 29, township 55, range 13, west of the 4th meridian Large culvert and grading

North of Lavoy between sections 1 and 2, township 53, range 13, west of the 4th meridian Corduroy, culvert and grading

From Shandro ferry south in townships 56 and 57, range 15, west of the 4th meridian. Filling and grading sloughs

West of Vegreville, blind line from sections 13 to 18, township 52, range 15, west of the 4th meridian Clearing, culverts and grading

From Gilpin to Viking, between townships 48, ranges 12 and 13, west of the 4th meridian. Three miles of ditching and grading

West of Mundare between sections 21 and 28, township 53, range 17, west of the 4th meridian Culverts, corduroy and grading

Between sections 23 and 24, township 52, range 17, west of the 4th meridian Cutting brush, culverts, and grading.

South of Holden between sections 10 and 11, 2 and 3, township 49, range 16, west of the 4th meridian Culverts, corduroy and grading

Range line between sections 25 and 30, 31 and 36, township 48, ranges 14 and 15, west of the 4th meridian Ditching, corduroy and grading

Between sections 14 and 15, 22 and 23, township 53, range 18, west of the 4th meridian Ditching, culverts and grading

North of Ryley, between sections 14 and 15, 22 and 23, township 50, range 17, west of the 4th meridian Culverts and grading sloughs

From Warwick to Desjarlais Crossing between sections 7 and 12, 13 and 18, 19 and 24, township 56, ranges 13 and 14, west of the 4th meridian Culverts and grading sloughs

Correction line between townships 50 and 51, range 19, west of the 4th meridian Cutting out road

From Bonnie Glen to Fisherhome, south of sections 25, 26, and 27, township 47, range 1, west of the 5th meridian Culverts and grading

Between sections 1 and 2, township 46, range 24, west of the 4th meridian
Culverts and grading

South of section 1, township 46, range 24, and south of section 6, township 46, range 23, west of the 4th meridian Grading and filling sloughs

North Pigeon Lake road between sections 10 and 15, township 47, range 27, west of the 4th meridian Culverts, grading and ditching

Between sections 2 and 3, 10 and 11, township 46, range 26, and sections 34 and 35, township 45, range 26, west of the 4th meridian. Culverts and grading



GRADING SLOUGH ON FOURTH MERIDIAN, NORTH OF LLOYDMINSTER.



ROAD CREW ON BLIND LINE WEST OF LEDUC, 49-1 W 5.

Between sections 13 and 14, 23 and 24, township 46, range 23, west of the 4th meridian Clearing, grubbing and grading.

Between sections 19 and 30, 24 and 25, 25 and 26, township 46, ranges 24 and 25, west of the 4th meridian. Corduroy, ditching and grading.

Peace Hill School Road between sections 6 and 36, townships 46 and 47, range 25, west of the 4th meridian Corduroy, culverts and grading.

Wetaskiwin-Pigeon Lake road from township 46, range 27, east to township 46, range 25, west of the 4th meridian Culverts, ditching and grading.

Between sections 7 and 8, 17 and 18, township 45, range 27, west of the 4th meridian Ditching, culverts and grading.

Between sections 23 and 26, township 47, range 25, west of the 4th meridian. (Covering corduroy.

North-west from Bear's Hill lake, between sections 11 and 12, 10 and 15, 7 and 18, township 47, range 27, west of the 4th meridian. Clearing, corduroy and grading.

Through section 7, township 46, range 1, west of the 5th meridian Covering brush and corduroy.

Between sections 7 and 18, township 44, range 22, west of the 4th meridian. Covering brush and grading.

South from Westrose on the 5th meridian, through township 46 Culverts, clearing, grubbing and grading.

FERRIES OPERATED DURING THE SEASON OF 1909.

1. North Saskatchewan River at Brosseau
2. Red Deer River at Steerford
3. Athabasca River on the Edmonton and Peace River Road.
4. North Saskatchewan River north of section 20-51-25-4 (Big Island).
5. Red Deer River, section 27-34-4-5.
6. Pembina River, township 58-3-5.
7. Athabasca River at Athabasca Landing
8. Big Red Deer River, east of Olds.
9. North Saskatchewan River, at Shandro
10. North Saskatchewan River, section 15-56-7-4.
11. Red Deer River at Fieldholm.
12. Saskatchewan River at Rocky Mountain House.
13. Peace River at Peace River Landing.
14. Narrows of Lac Ste. Anne
15. Saskatchewan River north of Kitscoty
16. Battle River, section 19-45-7-4.
17. North Saskatchewan River, north of Lamont
18. Bow River, south of Strathmore.
19. Red Deer River at Carbon
20. Battle River, north of Chauvin.
21. Oldman River, west of Monarch.
22. Pembina River, west of Wabamun.
23. Pembina River, section 26-56-7-5.
24. Red Deer River, north of Gleichen.
25. Oldman River, north-east of Pincher, section 16-7-29-4.
26. Belly River, north of Taber.
27. Peace River, at Dunvegan.
28. Pembina River, section 10-60-1-5.
29. North Saskatchewan River at Pakan.
30. Bow River, near South Mission School, Indian Reserve.
31. South Saskatchewan River at Bow Island.
32. Bow River, south of Brooks

FERRIES REMOVED TO DIFFERENT POINTS DURING THE SEASON OF 1909.

1. Ferry over the Bow River at Eagle Ribs Crossing to a point over the Bow River near South Mission School, Indian Reserve.
2. Ferry over the Big Red Deer River, west of Olds, moved to a point over the Red Deer River near Garrington, section 27-34-4-5.
3. Ferry over the Battle River south of Vermilion, moved to a point over the Battle River in section 19-45-7-4

FERRIES INSTALLED DURING THE SEASON OF 1909.

1. Pembina River, west of Wabamun, sections 33/34-53-7-5.
2. Peace River at Dunvegan.

3. Pembina River section 26-56-7-5.
4. Battle River north of Chauvin, section 23-45-2-4.
5. Old Man River west of Monarch
6. Bow River south of Brooks.

It will be noted from the above that three ferries were removed to other points, where they could be used to better advantage. At the former location of the ferry west of Olds and ferry over the Battle River south of Vermilion, bridges have been erected.

Six new ferries were installed during the season, and as an evidence of the rapid development of the country several other requests have been received as far north as Fort Vermilion, and it is evident a number of new ferries will have to be installed next season.

In view of the large influx of population in the various portions of the province, and the fact that it is impossible, with the funds at our command, to construct all large bridges required, we are endeavouring so far as possible to meet the traffic demands by installing ferries as a first means of meeting the requirements.

FIREGUARDS.

The following statement shows what has been done in the way of fireguards. The total mileage of 485 miles is less than last year, but in view of the rapid development of the country several guards ploughed heretofore were abandoned this year, cultivated land, and improved roads being ample protection.

	MILES.
Reploughing fireguard from the Red Deer River, section 21-23-1-4, west to the line between ranges 3 and 4, thence south to the Red Deer River	
Also reploughing fireguard starting on the line between ranges 3 and 4, thence west to the line between ranges 5 and 6 thence south to the Red Deer River	46
Reploughing fireguard from the Saskatchewan River to Many Island Lake, following the line between townships 13 and 14, across ranges 4, 3 and 2, west of the 4th meridian	19
Reploughing fireguard from the Canadian Pacific Railway north on the line between ranges 2 and 3, to meet guard on the north boundary of township 13, west of the 4th meridian	12
Reploughing fireguard from the South Saskatchewan River, township 12-8-4, south to the coulee in township 10-8-4	19
Reploughing fireguard from Bowell Station on the Canadian Pacific Railway south to the Saskatchewan River, following the line between ranges 7 and 8, townships 12, 13 and 14, west of the 4th meridian	8½
Reploughing fireguard from the South Saskatchewan River following the line between ranges 10 and 11, west of the 4th meridian, south to Lake Enokimi	24½
Reploughing fireguard from Bowell Station on the Canadian Pacific Railway north-easterly to the Saskatchewan River on the north boundary of township 14-5-4	13
Reploughing fireguard from the north-east of section 21-8-2-4 south to Battle Creek, thence in a south-easterly direction to head of Nine Mile Coulee	10
Reploughing fireguard from Langevin Station on the Canadian Pacific Railway, north to Dead Lodge Canyon on the Red Deer River on line between ranges 10 and 11	33
Reploughing fireguard, known as Stair Fireguard, from the north-west corner of section 12-13-7-4 to the line between townships 13 and 14, thence east to section 36-13-6-4	10
Reploughing fireguard commencing at the north boundary of township 13 running north on the line between ranges 1 and 2, to the Saskatchewan River, west of the 4th meridian	36
Ploughing fireguard running north and south through townships 12, 13 and 14, ranges 17 and 18, west of the 4th meridian	18
Discing fireguard along the south boundary of Blackfoot Indian Reserve, that is on the north boundary of township 19, from the line between ranges 24 and 25 east to the Bow River, also discing fireguard from the north boundary of township 19, south on the line between ranges 22 and 23, to the north boundary of township 14, all west of the 4th meridian	71½
Carried forward.	320½

Brought forward	320½
Breaking fireguard running north and south through townships 15, 16 and 17, ranges 18 and 19, west of the 4th meridian	18
Reploughing fireguard from the Bow River west to the Little Bow River on the north boundary of township 14, west of the 4th meridian	34
Discing fireguard starting at the south-east corner of township 15-21-4 and following the line between ranges 20 and 21, north to the Blackfoot Indian Reserve at the north boundary of township 19	30
Also ploughing a strip about 12 feet wide, with a space of 40 feet from old guard, starting at the south boundary of township 15 and running north to the north boundary of township 18	24
Breaking fireguard from the Bow River west to Snake Valley between townships 17 and 18, ranges 18, 19, 20 and part of 21, west of the 4th meridian	21
Discing fireguard from the Belly River to the Bow River following the line one mile west of the east boundary of range 16, townships 12, 13 and 14, west of the 4th meridian	17½
Reploughing fireguard from the Little Bow River on the north boundary of township 11-19-4, eastward to the Belly River in township 11-16-4	16
Ploughing fireguard on the west line of sections 6 and 7, township 26-5-5, and along sections 32 and 29, township 25-6-5	4
	485

WELL BORING.

Generally speaking, the water supply in the province is good. There are, however, portions of the south and south-eastern part of the province where settlers are experiencing difficulty in obtaining an adequate supply of water. In certain vicinities good supplies of water can be obtained, but the great depth to which it is necessary to drill, has greatly taxed our machines, and, further, makes the work very expensive.

As pointed out in our last report drilling is done upon road allowances, where, if water is obtained, the well is of service to the adjacent community and the operations determine if water is available and at what depth; operations being more in the nature of tests to determine if water is available, than to provide a supply for all settlers from the revenue of the province, which would be altogether too large an undertaking.

In addition to the following list of wells which give a good idea of the work done in this direction a number of private wells were drilled where settlers were prepared to meet all expenses, the machine supplied free by the department:

LOCATION.	DEPTH FT.	WATER
Well near Warner, between sections 33/34-10-3-4	400	No water
Well corner of sections 33 and 34, 3 and 4, 9/10-2-4.	400	No water
Well between sections 22/23-10-2-4	157	No water
Well at Newland's School, township 9-22-4	144	Fair supply
Well near Iron Springs	250	Good supply
Well corner of sections 5 and 6, 31 and 32-11/12-19-4	202	Fair supply
Well at Keho School, N.W. section 16-11-22-4	210	Good supply
Well corner of sections 3/4, 33/34-8/9-25-4	400	Small supply
No. 1 well at Monarch	235	Small supply
No. 2 well at Monarch	95	Small supply
Well on section 31-4-15-4	221	Good supply
Well between sections 22/27-3-12-4	232	Fair supply
Well No 2 in section 5-4-16-4	138	Small supply
Well between sections 27/28-3-16-4	155	Fair supply
Well between sections 22/27-3-14-4	171	Fair supply
Well between sections 31/6-3/4-14-4	189	Fair supply
Well between sections 25/26-4-16-4	170	Fair supply
Well in section 5-4-16-4	200	Fair supply
Well in section 18-3-13-4	80	Good supply
Well in section 6-5-15-4	121½	Good supply

Staff . . . { Architect
Seven draftsmen.
Two stenographers

The drafting work in connection with this building consisted of making working drawings and full size details of stone work in the external walls, together with the necessary drawings and schedules required for the quarrying and cutting and the setting of same in the work.

COURT HOUSE BUILDING, WETASKIWIN.

The drafting work in connection with this building consisted of making scale and full size details of special furniture for the court room and office furniture for the various court officials occupying the building.

ACUTE HOSPITAL FOR THE INSANE, PONOKA.

The drafting work in connection with this building consisted of completing the working and steel framing drawings, preparing scale and full size details of the exterior stone and brick masonry; the exterior wood and galvanized iron work; particular details relating to roof coverings.

LAND TITLES BUILDING, CALGARY

The drafting work in connection with this building consisted of making scale and full size details of the marble and plaster finish, and the steel office and vault furniture.

HEATING BUILDING, CALGARY

The drafting work in connection with this building consisted of making scale and full size details of the structural steel work and a few window details; the working drawings were completed during the latter part of 1908.

COURT HOUSE, FORT SASKATCHEWAN.

The Court House at Fort Saskatchewan is of rubble stone and brick masonry walls, local field stones and brick being the material used; wood construction and wood and plaster trim.

The drawings for this building were started in June and completed in September during the progress of construction of the building, which was carried on by day labour under the direct supervision of the department.

The building occupies a portion of the north-east part of the property formerly belonging to the Royal North-West Mounted Police, facing east on Government Avenue and raised a few feet above the same.

It is rectangular in plan, being 32 feet 7 inches wide by 48 feet 10 inches long; two stories high, and having a high basement under the entire structure.

The foundation walls enclose a basement of eight feet in height, in which are located the heating apparatus and coal storage bin. Space has been provided in the basement for the installation of cells, should they ever become necessary, but at present they have been omitted. The basement is reached from a stairway connecting with the south entrance and also a service stairway connecting directly with the outside on the west.

Entrance is gained to the building at the first floor level through the main entrance facing the east, and a side entrance on the south.

The main entrance is reached after going up a short run of concrete steps, flanked on each side with rubble stone buttresses, and passing through a semi-circular arched doorway.

After passing through the doorway, one steps into a vestibule which is 6 feet wide and 5 feet long and then into a main hall 6 feet wide and 12 feet long. Leading off the main hall are offices for the judge and clerk, also the library. Connecting with the main hall through an arched opening is the staircase hall, in which are the main stairs leading up to the second or court room floor. Leading off the staircase hall is a small vestibule connecting with the side entrance and from this small vestibule, access is gained to the lawyers' room.

On the second floor opening directly off the staircase hall is the court room which is 30 feet wide and 32 feet long. The public gain access to the court room from the staircase hall and the judge has a private stair leading from his office and connecting directly with the bench. The witness room has a floor opening into the staircase hall and one opening directly into the court room.

The entire structure is finished in white plaster and painted wood trim.

The building is heated by a warm air furnace and lighted by electric lights.

Externally the building presents a pleasing appearance with its rubble stone masonry basement walls of varying colors neatly jointed off and forming a base for the two storey brick superstructure which it supports. The superstructure is built of local brick laid up in Flemish bond and having red mortar joints. The window openings in the first storey are finished with plain brick architraves which have heads of semi-circular form and sunken brick panels under sills. At the first floor line a belt of Calgary sandstone is carried around the entire structure, and similar belts form the window sill and lintel courses for the second storey windows. The roof is finished in shingles stained a deep green colour and having a bracketed cornice painted a cream colour.

TELEPHONE SUB-STATION, CALGARY.

The Telephone Sub-station at Calgary is of concrete, brick, terra cotta and wood construction, without any plaster or wood finish.

The drawings for this building were started and completed during the month of July.

The building occupies the central part of Block 6 in East Calgary facing north-east on Atlantic Avenue.

It is rectangular in plan, being 20 feet 6 inches wide and 32 feet 4 inches long; one storey high and having a low basement under the entire structure.

The foundation walls enclose a basement of six feet, in which are located the heating apparatus and coal storage bin. This basement is really an inner compartment, as the building is built up of an outer wall of concrete and brick masonry enclosing a concrete and terra cotta block inner shell. There is a space of twenty-two inches between these walls on three sides and three feet nine inches on the entrance side. This double wall arrangement was adopted as being the type of construction best suited to the operation of the automatic telephone apparatus which is to be installed in the building, as it is desirable to maintain uniform temperature in buildings which are to be put to this particular use.

Entrance is gained to the building at the first floor level through the only entrance facing on Atlantic Avenue. This entrance consists of a pair of wood doors set into a brick arched opening located in the centre of a plain brick gabled end wall.

After passing through the doorway, one steps into the larger air space separating the two walls, and faces directly a door which gives access to the apparatus room and another door at the right which gives access to the battery room.

The apparatus room contains the various pieces of machinery or parts which go to make up the complete automatic telephone exchange. The battery room contains the storage battery cells which supply the necessary electric current for the operation of the apparatus through its mechanical parts. The battery room is specially designed to prevent the leakage of noxious odors from the same to any other part of the structure, and a ventilating duct leading directly to the roof has been installed to assist in keeping the air pure in the room. Entrance is gained to the basement by a step-ladder at the right of the street entrance.

The building is heated by a warm air furnace. Fresh air is introduced through ducts in the outer walls and after passing through the basement (which is really a warm air chamber) it is circulated around the air space above the first floor and then passes out through a ventilator in the roof.

With the exception of the roof construction (which is wood covered with metal shingles), the building is built up entirely of fireproof materials.

Externally the building presents a plain brick structure, having gable ends surmounted by a Calgary sandstone coping.

TELEPHONE BUILDING, LETHBRIDGE

The Telephone Building at Lethbridge is of a concrete, brick and wood construction, the exterior walls being faced with pressed red bricks and trimmed with Calgary sandstone and brick bands and wood and plaster trim.

The drawings for this building were started in May and completed in July during the progress of construction on the building which was carried on by day labour under the direct supervision of the Department.

The building occupies a portion of Block 43, facing north on Dufferin Street.

It is rectangular in plan, being 27 feet 2 inches wide and 49 feet 11 inches long; two stories high, and having a high basement under the entire structure.

The foundation walls enclose a basement of nine feet in height, in which are located the heating apparatus; coal storage bin; engine, battery and storage rooms; toilets for male employees. The basement is reached by a stairway at the south-east corner from the first storey and exterior concrete steps from the grade on the south side.

Entrance is gained to the building at the first floor level through the main entrance facing north and a rear entrance on the south end.

The main entrance is reached after passing up a short run of stone steps, flanked on each side with brick buttresses capped with stone, and passing through a flat arched doorway.

After passing through the doorway, one steps into a vestibule which connects by a large arched opening with the public space. Connecting with the vestibule and public space are the private and

general offices for the manager, inspector and clerks for the Telephone Department centering in the Lethbridge district. Leading out and up from the public space is a staircase connecting with the second floor, which is entirely given over to the uses of automatic telephone apparatus and long distance toll lines.

The entire structure is finished in white plaster and fir trim finished natural.

The building is heated by a one pipe low pressure steam system and has toilet accommodation for men in the basement and for women on the second floor.

Externally the front facade presents a neat, business-like appearance, being divided by pilasters into two equal bays for the entire height, all being surmounted by a sheet metal cornice of pleasing details. Sandstone belt divides the elevations horizontally at the first floor level and flush brick belts at the sill and lintel lines of the windows in both stories. A brick parapet wall capped with sandstone surmounts the entire structure. The roof is flat and covered with galvanized iron roofing.

ARTS BUILDING, STRATHCONA.

The drafting work in connection with Faculty of Arts Building at Strathcona for the University Senate consists of several sets of sketch plans and elevations which were made during the year, and after a satisfactory arrangement had been arrived at, they were handed to the University Senate for its acceptance or rejection. The Senate approved of the plans and designs in a general way and made the request that enough drawings be prepared to permit of the placing of footings and basement walls before the close of 1909. This part of the work was done and in addition thereto the working drawings were started and were still in an elementary condition at the close of the year, with the exception of details for stone work which were being completed and will be ready for tenders before March 1st, 1910.

As the internal arrangements of this structure have not been entirely approved of by the Senate, it is impossible to enter into a detailed description of the building and its various functions. Sufficient it is to state that the elevations will consist of a granite basement, storey and main entrance, supporting three upper stories in sandstone, all in the Collegiate Gothic style of architecture, and the internal construction will be fireproof throughout, consisting of steel columns and floor beams protected with concrete, reinforced concrete floors, terra cotta tile block and brick partitions.

The Senate also requested that plans for a dormitory building be prepared and submitted to them at a meeting to be held some time during the month of February, 1910. Sketch plans of this dormitory building have been made and a start has been made on the working drawings for the same, all of which will be ready for the Senate meeting to be held in February, 1910.

COURT HOUSE, LETHBRIDGE.

The drafting work in connection with this building consists of making the wiring diagrams for the electric lighting; completing full size details and particular details for uses during progress of construction, with the exception of a few details necessary for the getting out of the plaster ornaments, which work will be carried over to 1910.

The general description of this building is similar to that of the Court House at Wetaskiwin, and which appeared in the report of the Department for 1908.

JAIL AT LETHBRIDGE.

The Jail at Lethbridge is of concrete, brick and wood construction, and is finished in painted brick walls and white plaster.

Sketch plans were prepared for this structure early in the year and after a few minor changes were made, they were finally accepted, and in July a start was made on the working drawings and the work continued until all drawings were finished late in December.

This building is located about four miles directly east of the City of Lethbridge on the N.W. $\frac{1}{4}$ of Section 35, Tp. 8, R. 21, west of the 4th Meridian, and consists of three units, viz.: Administration and Kitchen buildings, and Cell House for male prisoners

The Administration Building is rectangular in plan, being 48 feet wide and 94 feet long, and consists of a high basement and two stories above same

The Kitchen Building is rectangular in plan, being 30 feet 10 inches wide and 52 feet 8 inches long, and consists of a high basement and one storey above same

The Cell House is rectangular in plan, being 51 feet 8 inches wide and 140 feet 10 inches long, and consists of one high storey, in which are located three tiers of cells for male prisoners

Access is gained to the building at the ground level through a segmental arched entrance leading to a central corridor in the Administration Building.

Administration Building.

After passing through the entrance doorway, one steps into a vestibule which is a landing for the main stairs from the basement to the first floor. Going down the stairs to the basement one comes to a central corridor; leading off this corridor on the right are dining rooms for the officials and female prisoners, and on the left a large dining room for male prisoners. At the end of the corridor is a tower in which is a utility staircase connecting all floors of the administration and kitchen buildings. The other rooms in the basement are a dormitory for female prisoners, clothes and shower bath rooms for male prisoners and two utility staircases connecting the basement floor of the cell house for males and the dormitory for females with all the floors of the administration building.

The first floor is reached by going up the main stairs from the entrance vestibule and coming to a central corridor; leading off this corridor on the right is the warden's office, and on the left is the deputy warden's office, and straight ahead is a doorway opening into a visitors' space. Additional rooms on this floor are a guard room, store room, and work room for female prisoners. There is also one run of stairs in the central corridor which leads up to the second floor.

The stairs from the first floor land in a central hall, off which are a bedroom for the deputy warden and a large room to be used as a dormitory for the jail guards. Other rooms on this floor are a female hospital ward and matron's bedroom; male hospital and dispensary. With the exception of the dispensary, all of these rooms have bath rooms and toilet accommodations.

Kitchen Building.

The basement contains space for a heating chamber to warm the air which will be used in connection with the ventilating system, and room for laundry purposes and a serving room for the kitchen which is located on the first floor.

The first floor contains a large kitchen, in which all cooking for the jail officials and inmates will be done. Leading off the kitchen are storage and pantry rooms and a refrigerator.

Cell House

The main floor of the cell house is on a level with the basement floor of the administration building. It contains three tiers of cells; each tier contains 34 cells, or a total of 102 cells for the building. There is also one cell in addition to the above; it is a separate cell to be used as a death cell. Each cell tier is reached by a staircase at the end of the cells nearest the administration building. There is but one entrance to the cell house, and all prisoners will have to pass through same when going outside to attend to their daily tasks. Each cell is provided with a stationary water closet and wash bowl, a bed to swing up in the daytime and a small book shelf.

There is a mechanical ventilating system provided for the renewal of air in the cell house and parts of the administration building where prisoners are liable to be in considerable numbers, such as dining rooms and hospitals.

The building will be heated by a low pressure steam heating system, the power for same being generated in a separate power plant which at present has not been designed.

All windows in the cell house and those of the administration building which are outside of the jail yard wall have strong iron guards on the outside, well built into the brick work. The corridors have cross barriers of steel, as is customary in institutions of this character.

Externally the building presents the appearance of solidity, especially the cell house, and is entirely in keeping with this type of a structure.

The main entrance is of brick masonry, as are all of the buildings. It is finished off with a moulded stone cornice and brick parapet capped with stone. It forms a neat and simple setting for the main entrance door which is framed all round with a mould stone architrave.

The basement storey of the administration building is 10 feet 6 inches high above the grade and is divided horizontally by five brick bands, which with the segmental window heads and their heavy arches, gives a solid appearance to this part of the structure.

At the first floor level is a moulded stone belt course which forms a sill for the first storey window setting.

The first storey windows have semi-circular heads and are arranged in pairs, being set in between brick piers which start at the first floor belt line.

The second storey windows have flat heads and a plain stone belt course forms a sill line all round the administration building and a plain cornice for the kitchen building and cell house.

The entire upper part of the administration building is surmounted by a bracketed metal cornice.

The stone belts of the administration building follow around the kitchen building, and the windows carry out the same details, thus making these two buildings uniform in their appearance.

The cell house is a plain structure and in appearance resembles a warehouse type of building, as it has but one long window in each bay and that of a severe type, having a semi-circular arched head in line with the first storey windows of the administration building.

All exterior faces will be laid up with pressed red brick and trimmed with Calgary sandstone.

The roofs are flat and covered with galvanized sheet metal.

A. M. JEFFERS,
Architect.

BUILDING CONSTRUCTION

SIR,—I have the honour to submit the following report on the construction of Public Buildings for the year 1909, as carried on under the superintendence of the Department of Public Works:

PARLIAMENT BUILDINGS, EDMONTON.

In the report on this building for the year 1908 it was shown that the foundation walls and interior column footings, in which there were placed 9,844 cubic yards of concrete, were completed, also that 2,317,774 pounds of structural steel had been received, and of this amount 1,098,526 pounds erected and rivetted.

The erection of steel work was continued during the early part of the present year until the work was complete up to the main floor of the building, at which point further erection was suspended in order to facilitate the erection of the masonry walls.

The further erection of steel was resumed in November, is now being actively carried on, and it is expected by spring to have the entire steel work complete, excepting the top of the main central dome, which cannot be placed until the masonry is carried up to that point.

The entire steel work is thoroughly insulated as a protection against an electric charge. This is accomplished by copper plates thirty inches square and three-eighths of an inch thick, one for each wing and one for the central dome, placed well down in the moist ground and attaching these to the respective parts of the steel by heavy copper wire.

In the latter part of the year 1908 a contract was awarded for the supply and delivery of granite to complete the basement storey, entrance steps and balustrades. During April of the present year the first consignment of this was received and the first stone was set in place on May 18th.

The work of setting the granite and brick backing, together with the interior brick walls, was carried on continuously throughout the summer, and at the end of October the main walls of the building were complete up to the first floor which is also the line of the top of granite. The upper walls of the building, which are of sandstone

from the Glenbow Quarries near Calgary, were immediately commenced and carried up on the south wing to almost the second floor line. Owing to the severe weather in the early part of the winter masonry work for economic reasons was discontinued early in December to be resumed at as early a date in the spring as weather will permit.

Considerable delay was experienced throughout the season owing to shortage of building material, principally stone and brick. The demand during the past building season for both these articles taxed the capacity of the producers to their utmost, and, added to the demand, the long rail haul on granite from Vancouver made other delays, so that but a small force of masons could be continuously employed and these not always to the best advantage.

In addition to the above work a further amount of concrete was placed incasing part of the steel work; permanent water connection was made with the city mains on Saskatchewan Avenue by 158 feet of 6-inch cast iron pipe; and a close board fence 1,620 feet long and 6 feet high built to enclose the building and material yard.

It was necessary at the commencement of the season, in order to further prosecute the work, to erect necessary construction buildings and plant. The buildings erected were office, heating shed, blacksmith shop, carpenter shop, workmen's shed, storehouse and engine houses. The principal plant constructed was one steam yard derrick with 70 feet boom and six hand power wall derricks, each with 50 feet boom and a capacity of 5 tons, 2,980 feet of 26-inch gauge track and 16 cars for stone and brick.

To provide a connection between the main building and the power house to be erected adjacent to the E. Y. & P. branch of the Canadian Northern Railway a tunnel 6 feet 8 inches high by 6 feet wide (inside measurement) and 584 feet long of reinforced concrete was constructed. This tunnel has a covering of from 4 to 12 feet and will contain all the steam and water mains, also electric wire necessary to convey heat and power from the power house to the Capital Building.

In order to prevent, as far as possible, delays in construction during the ensuing year, orders have been placed for two million brick and 800 yards of sand; these together with building stone are now being delivered.

In addition to the work in the blacksmith shop incidental to the construction of the building, all blacksmith work required by the Telephone Branch and sundry work in connection with bridges, ferries and other buildings in the district, was also executed. These works amounted to:

Telephone Work—

Material:

Iron, 22,209 lbs	\$888 36
Steel 844 lbs	84 40
Labour on same	512 95

Bridges, Buildings and Ferries—

Labour	383 76
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The corner stone of the building was laid on October 1st by His Excellency Earl Grey, the Governor General of Canada. This stone is of granite and placed at the north-east corner; the size is 4 feet 10 inches long by 4 feet 1½ inches high and 2 feet 6 inches deep, and has a weight of 4¾ tons. In a cavity below the stone was placed a copper casket containing various records of the province.

A large arch was erected at the entrance to the grounds, also a grand stand 106 feet long, roofed, and containing eight rows of raised seats, placed immediately opposite the location of the corner stone. In front of this stand was placed a platform for the school children, 106 feet long and 32 feet wide raised some distance from the ground. Suitable platforms were also constructed for the vice-regal party and the various bands attending the ceremony.

All the above works were carried on by day labour under the direct supervision of the Department of Public Works, and the costs of the various works are shown in detail in the following tables:

TABLE I.

Cost of Material and Labour in connection with unloading and setting Granite on Parliament Buildings:

	Quantity	Total Cost	Unit cost per cu. ft.
Granite received and unloaded	28,210 cu ft		
Cost at siding		\$ 94,380 38	3 345
Inspection		1,028 50	036
Labour unloading		952 51	034
Checking		292 245	010
Moving stone		255 23	009
Moving and placing derricks		73 40	003
Passenger transportation		124 70	005
Rental of railway siding		23 50	001
Coal	69,863 lbs	117 90	004
Total cost of material in yard		\$97,248 365	3 447
Re-cutting damaged stone		\$231 84	

Cost of Setting Stone in Walls.

	Quantity	Total Cost	Unit cost per cu.ft.
Stone	23,558 cu.ft.		
Lime putty	750 cu.ft.	\$ 120 02	005
Cement	62½ bbls	191 05	008
Sand	125 cu.yd	196 50	008
Screening sand		56 835	002
Setters of stone		2,677 115	113
Helpers with stone		2,053 97	087
Helpers with mortar		105 085	004
Mixing mortar		182 335	008
Drilling stones for lewises		388 32	017
Building scaffolds		111 24	005
Making and repairing tools		523 395	022
Moving and placing derricks		209 985	009
Making and setting centres		145 67	006
Making mortar boxes		16 51	001
Lumber for mortar boxes		11 25	001
Cutting walls		53 95	002
Cutting and bending anchor rods		12 85	001
Washing and cleaning walls		34 00	001
Coal	121,425 lbs.	205 04	009
Miscellaneous		88 88	004
		\$ 7,384 00	313

Granite set per setter, per hour	7 13-16 cu ft.
Putty limes used per 1,000 cu. ft. granite set	31 3-8 cu ft
Sand used per 1,000 cu. ft. granite set	143 cu ft.
Cement used per 1,000 cu. ft. granite set	2 11-16 bbls.

TABLE II.

Cost of Material and Labour in connection with unloading and setting Sandstone on Parliament Buildings.

	Quantity	Total Cost	Unit cost per cu. ft.
Sandstone received and unloaded	11,166 cu ft.		
Cost at siding		\$ 34,569 81	3 096
Inspection		586 25	052
Labour unloading		674 17	060
Checking		98 345	009
Passenger transportation		24 45	002
Rental of railway siding		23 50	002
Coal	31,160 lbs	52 66	005
		\$36,029 185	3 226
Re-cutting damaged stone		\$30 01	

Cost of Setting Stone in Walls.

	Quantity	Total Cost	Unit cost per cu. ft.
Stone	5,890 cu ft		
Lime putty	196 cu ft	\$ 31 68	005
Cement	16½ bbls	49 50	008
Sand	11½ cu yds	16 09	003
Screening sand		4 94	001
Setters of stone		662 95	113
Helpers with stone		662 165	113
Helpers with mortar		58 78	010
Mixing mortar		68 405	012
Marking and setting centres		235 27	040
Moving and placing derrick		143 81	024
Making skips and mortar boxes		79 03	013
Iron and lumber for skips and mortar boxes		29 04	005
Making and sharpening tools		97 995	017
Drilling stones for lewises		60 075	010
Building stages and scaffolds		31 40	005
Iron for anchor rods		27 82	005
Cleaning walls		28 11	005
Protecting stone		19 65	003
Coal	83,171 lbs	140 39	023
Miscellaneous		33 89	006
		\$2,480 99	421

Sandstone set per setter, per hour	8 5-16 cu ft.
Putty lime used per 1,000 cu. ft. sandstone set	33½ cu ft.
Sand used per 1,000 cu. ft. sandstone set	53 cu ft.
Cement used per 1,000 cu. ft. sandstone set	2 13-16 bbls.

TABLE III.

Cost of Material and Labour in connection with Brickwork on Parliament Buildings.

	Quantity	Total Cost	Unit cost per 1,000
Brick laid in walls	795,836		
Cost of brick in yard		\$ 6,963 58	8 750
Lime putty	2,817 cu. ft.	449 12	564
Cement	235 bbls.	714 85	898
Sand	402 cu yd	627 30	788
Screening sand		215 34	271
Bricklayers		2,417 10	3 037
Helpers with brick		1,068 925	1 343
Helpers with mortar		498 78	627
Mixing mortar		663 315	833
Building stages and scaffolds		464 135	583
Making slaking tank, mortar boards and skips		184 57	232
Iron and lumber for slaking tank, mortar boards and skips		105 89	133
Making and setting centres		100 295	126
Unloading, moving and piling brick		174 26	219
Making and repairing tools		18 37	023
Digging foundation for stair walls		19 62	025
Coal	45,512 lbs	76 89	097
Miscellaneous		137 71	174
		\$14,900 05	18 723

Bricks laid per bricklayer, per hour 194
 Putty limes used per 1,000 bricks laid 3 9-16 cu. ft.
 Sand used per 1,000 bricks laid 13 5-8 cu. ft.
 Cement used per 1,000 bricks laid 5-16 bbls

	Quantity	Total Cost	Unit cost per 100 lbs.
Lime received and unloaded	139,670 lbs.		
Cost at siding		\$ 811 07	581
Labour unloading		76 55	055
Labour running into putty		153 08	109
Making lime sheds and pits		108 55	078
		\$1,149 25	823

100 lbs. unslaked limes equals 5 cubic feet of putty lime

TABLE IV.

Cost of Material and Labour in connection with unloading and erecting Steel on Parliament Buildings:

	Quantity	Total Cost	Unit cost per 100 lbs.
Steel received and unloaded	1,339,788 lbs.		
Cost at siding		\$ 64,309 55	4 800
Inspection		298 11	022
Labour unloading		482 02	036
Labour sorting and checking		389 645	029
Rental of railway siding		15 65	001
Coal	23,215 lbs.	39 15	003
		\$65,534 125	4 891

Cost of Steel Erected

	Quantity	Total Cost	Unit cost per 100 lbs.
Steel	970,760 lbs.		
Superintending		\$ 321 42	033
Erecting		1,139 435	117
Rivetting		668 05	069
Moving and placing plant		575 245	059
Falsework		135 275	014
Reaming		62 825	006
Re-threading erection bolts		37 25	004
Faulty shopwork		14 975	002
Coal	91,384 lbs.	154 27	016
Miscellaneous		317 86	033
		\$3,426 605	353
Copper plates and wire for insulating steel frame		\$111 97	011

TABLE V.

Cost of Material and Labour in connection with Concrete work in Tunnel.

	Quantity	Total Cost	Unit cost per cu. yd.
Concrete placed in tunnel 6' 8" x 6'	446 cu yds		
Cement	530 bbls.	\$ 1,610 94	3 612
Crushed rock and gravel	364 cu yds	707 00	1 585
Sand	188 "	310 20	696
Lumber in forms	24,023 B M.	536 56	1 203
Nails	700 lbs.	32 55	073
Coal	22,454 lbs.	33 68	076
Water		24 30	054
Miscellaneous		39 68	089
Making, placing and removing forms		772 945	1 731
Feeding mixer		268 70	602
Wheeling concrete		295 01	661
Placing and tamping concrete		178 26	400
Sundry Labour		91 255	205
		\$4,901 08	10 989

Cost of Steel for Reinforcing Walls

	Quantity	Total Cost	Unit cost per 100 lbs
Steel	45,930 lbs	\$ 1,419 82	3 091
Labour unloading and checking		32 10	070
Labour cutting and bending		57 965	126
Placing in position		140 97	307
		\$1,650 855	3 594

Excavating.

	Quantity	Total Cost	Unit cost per cu. yd
Excavating	2,436 cu. yds		
Labour		\$ 2,703 06	1 109
Repairing tools		67 50	028
Pulling down old buildings		36 00	015
Powder and fuse		46 65	019
		\$2,853 21	1 171
Backfilling	584 cu yds	\$570 825	515
Total cost		\$9,975 97	
Total length of tunnel		584 lineal ft.	
Unit cost per lineal foot		\$17 082	

TABLE VI.

Cost of Material and Labour in connection with Concrete Work on Parliament Buildings:

	Quantity	Total Cost	Unit cost per cu. yd
Concrete in walls, column footings and casing of girders	534 cu yds		
Cement	457½ bbls	\$ 1,403 52	2 628
Gravel	417 cu yds	688 05	1 289
Sand	210 cu yds	346 50	649
Making, placing and removing forms		674 635	1 264
Feeding mixer		427 075	800
Wheeling concrete		532 685	997
Placing and tamping concrete		180 30	337
Moving and placing mixer		71 65	134
Cleaning and cutting walls		60 50	113
Water		28 70	054
Coal	23,000 lbs.	34 50	065
Nails		3 65	007
Sundry Labour		59 57	111
		\$4,511 335	8 448
Backfilling		\$1,367 54	

TABLE VII.

Cost of Material and Labour in connection with Temporary Buildings on Parliament Buildings

	SIZE	COST
Heating shed	85 ft x 44 ft	\$ 531 255
Office	31 ft x 16 ft.	345 665
Blacksmith's shop	25 ft. x 20 ft	165 265
Workmen's shack	56 ft. x 14 ft.	130 43
Carpenter's shop	40 ft x 25 ft.	122 52
Houses over 3 hoisting engines	18 ft x 12 ft.	127 555
	16 ft x 15 ft.	
	15 ft. x 10 ft.	
Iron shed	20 ft x 10 ft.	68 14
Bolt and tool house	16 ft x 7 ft.	27 54
		\$1,518 37

TABLE VIII.

Cost of Material and Labour in connection with Fence erected around Parliament Buildings:

	Total Cost	Unit cost per lineal ft.
Fence erected 1,621 lineal feet, 6 ft. high.		
Lumber 11,966 B.M.	\$ 204 88	126
Fence posts 220	109 01	067
Nails, hinges, locks, etc	26 85	016
Labour	257 80	159
	\$598 54	369

TABLE IX.

Cost of Material and Labour in connection with Permanent Water Service on Parliament Buildings:

	Total Cost	Unit cost per lineal ft.
Water Service, 158 lineal feet.		
6-inch pipe, stop and waste lock, lead, etc	\$228 45	1 446
Labour	389 825	2 467
	\$618.275	3 913

TABLE X.

Cost of Material in connection with Stages and Scaffolds on Parliament Buildings.

Lumber in stages and scaffolds in stock	\$1,123 77
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TABLE XI.

Cost of material and labour in connection with laying of Corner Stone on Parliament Buildings:

Material	\$1,010 62
Labour	1,641 965
	\$2,652 585

TABLE XII.

Cost of Material received and Labour expended in connection with Parliament Buildings.

	MATERIAL	LABOUR	TOTAL COST
Structural steel	\$110,948 09	\$ 3,843 09	\$114,791 18
Granite	94,264 53	9,745 715	104,010 245
Sandstone	34,393 97	3,819 995	38,213 965
Brick	26,457 71	5,824 71	32,282 42
Sand	1,393 69		1,393 69
Gravel	1,160 47		1,160 47
Lime	516 77	338 18	854 95
Cement	3,380 00		3,380 00
Concrete		2,006 415	2,006 415
Concrete sundries	92 68		92 68
Tunnel		5,214 59	5,214 59
Explosives	46 65		46 65
Backfilling		1,367 54	1,367 54
Iron	2,107 63		2,107 63
Lumber	1,548 34		1,548 34
Nails	141 67		141 67
Coal	756 36		756 36
Vault doors	1,255 00	1 50	1,256 50
Fence		257 80	257 80
Grading		264 58	264 58
Tools	368 45	101 05	469 50
Water service	228 45	389 825	618 275
Blacksmith's repairs		907 025	907 025
Erecting and maintaining machinery plant	3,202 97	3,313 895	6,516 865
Pipes, pipe fitting and machinery sundries	784 78	710 64	1,495 42
Electric wiring	19 80		19 80
Temporary buildings	220 02	834 51	1,054 53
Superintendence and office expense.		2,194 75	2,194 75
Maintenance and general expenses	161 89	1,605 245	1,767 135
Night watching		1,256 00	1,256 00
Freight	2,517 92		2,517 92
Laying corner stone	1,010 62	1,641 965	2,652 585
	\$286,978 46	\$45,639 02	\$332,617 48

TABLE XIII.

Cars of Material unloaded at Government Siding in connection with Parliament Buildings.

MATERIAL	No of Cars	LBS.
Granite	62	4,369,660
Sandstone	39	1,736,720
Structural steel	26	1,380,788
Cement	6	456,750
Lumber	8	336,040
Coal	3	168,700
Lime	4	139,670
Brick	2	112,500
Bridge outfit	3	68,000
Round steel, $\frac{1}{2}$ -inch and $\frac{3}{4}$ -inch	1	41,025
Miscellaneous building material	1	40,000
Fence poles	1	30,000
	156	8,879,853

A total weight of 4,440 tons.

PONOKA ASYLUM.

At the close of 1908 the piles were driven for the foundations of this building, and a quantity of rubble stone, crushed rock and sand delivered for the work of the present year.

On the first of March the hauling of building sand was resumed and continued until the sleighing became too poor for further delivery.

Construction was commenced on April 15th with the cutting of the foundation piles to a level surface and placing the concrete footings. These footings are 4 feet wide and 2 feet thick, reinforced with two courses of No. 10 3-inch mesh expanded metal. On top of the concrete footings and extending to the grade line, a height of 4 feet, are rubble masonry walls 2 feet 6 inches thick, rough dressed to an even surface, thoroughly waterproofed on both sides; on the outside to the grade line and on the inside to the basement floor line also a heavy waterproof coat is placed between the concrete and rubble masonry.

This waterproof material is composed of 1 part coal tar, 4 parts pitch and 1 part hot sand, all thoroughly mixed and applied hot to a thickness of approximately one-half to three-quarters inch.

From the grade line and extending up to the top of the basement storey, a distance of 9 feet, are 9 courses of rock-faced ashlar of Calgary sandstone cut in Calgary and shipped ready to set in the wall. This is backed with a 21-inch brick wall inclosing at 2-inch air space near to the inside and making a total wall thickness of 30 inches. Above the basement walls the building rises three stories, entirely faced with pressed brick. The total height from the grade line to the cornice is 48 feet, and the thickness of walls for the respective stories are: first storey, 21 inches; second and third stories, 17 inches. The interior of all the outer walls will be lined with hollow terra cotta tile, adding 4 inches in thickness to each wall.

The interior and roof framing are of steel, which will, with the exception of the roof framing, be properly protected by concrete. The roof covering is of wood fastened to the steel work and protected on the inside by a suspended plastered ceiling and on the outside with galvanized iron laid in strips 18 inches wide over wood rolls.

In order to quickly handle the material a large double cage hoist extending the full height of the building was erected at the commencement of the work. Each cage was capable of holding five wheelbarrows. To lessen the work of the hoisting engine and add to the safety of the hoist, the weight of the cages and empty barrows were counterbalanced with concrete weights, so that the load to be raised was only the contents of the barrows. The operating cables were continuous, being fastened to the bottom of the cage, passing around the drum of the engine up over the head gear of the hoist, down to and fastened to the top of the cage. The hoisting engine was reversing and thus worked positive on both up and down travel. This arrangement proved ample to serve from 20 to 25 bricklayers with brick and mortar.

The mortar was all mixed with a No. "O" Smith concrete mixer and was served by two men, the engine man to tilt the mixer and one man to feed the material. The mortar was composed of one part lime putty with 25 per cent of Portland cement added, and three parts sand. The lime was first run into putty and allowed to stand from two to three weeks before using. In the mortar for the rubble masonry was used one part lime putty, one part cement and six parts sand.

The ashlar masonry was set with the ordinary stiff leg derrick operated by hand power

Owing to unavoidable delay in securing the ashlar it was the first of August before the upper walls were commenced. However, after that date they were pushed ahead as fast as material could be supplied, and the walls were practically completed early in December.

All masonry, both stone and brick, is fully bedded in mortar and no voids are left in the walls.

In order to secure a plentiful supply of pure water a four-inch hole was drilled to a depth of 392 feet. At a depth of approximately 120 feet shale rock was struck, and at a depth of 200 feet a seam of coal from 4 to 5 feet in thickness was passed. A plentiful supply of water was secured and a sample submitted to the Provincial Analyst, who reported it suitable for domestic use. Provision is now being made to put down a 10-inch hole in which can be operated two independent pumps as a protection against accident.

Provision is also being made to construct 3,000 feet of sewer from the building to the treating tanks from which the treated effluent will pass to a nearby creek.

Sufficient sand and stone has been delivered for the concrete floors, which will be put in as soon as mild weather arrives. A quantity of brick is also on the ground for the construction of the Power House.

The above work is carried on by day labour.

Details of expenditure for the year are shown in the following tables:

Detailed Statement of Expenditure on Ponoka Asylum, 1909

	Total Cost	Unit Cost
TEMPORARY BUILDINGS—		
Material	\$ 180 63	
Hauling	6 54	
Labour	55 50	
Total	<u>\$ 242 67</u>	
PLANT—		
Inventory 1908	\$ 107 72	
Material 1909	2,403 20	
Labour	1,366 20	
Freight	525 24	
Hauling	69 22	
Total	<u>\$4,471 58</u>	
Inventory	<u>3,000 00</u>	
Distributed	<u>\$1,471 58</u>	
COAL —		
Inventory 1908, 25 tons	\$ 128 00	Per ton \$5 12
1909, 203 98 tons—		
Material	611 94	\$3 00
Freight	343 68	1 68
Hauling	160 47	78
Total	<u>\$1,244 09</u>	<u>\$5 46</u>
Distributed 198 98 tons	<u>\$1,081 19</u>	
Inventory	<u>\$ 162 90</u>	

	Total Cost	Unit Cost
SAND—		
Inventory 1908, 484 yds	\$ 760 70	Per yard \$1 57
1909, hauling 1,507½ yds	1,507 50	1 00
Labour	218 60	14
Total 1,991½ yds	\$2,486 80	\$1 248
Inventory, 418½ yds	\$613 57	1 248
Distributed 1,501 yards	\$1,873 23	
GRAVEL—		
Inventory, 1908, 671½ yds. crushed	\$1,597.85	Per yard \$2 39
1909, 1,200½ yds uncrushed		
Royalty	180 04	15
Hauling	1,500 26	1 25
Labour	139 12	11
Total	\$3,417 27	\$1 51
Distributed 528 yds	\$1,261 92	
Inventory	\$2,155 35	
RUBBLE—		
Inventory, 1908, 137 cords	\$2,396 15	Per Cord \$17 49
1909, 42 45 cords —		
Material	212 25	5 00
Hauling	169 80	4 00
Freight	335 72	7 90
Total, 179.45 cords	\$3,113 92	Average \$17 35
Distributed 170 cords	2,949 97	
Inventory 9 45 cords	\$163 95	
CEMENT —		
Inventory, 1908, 600 bbls	\$1,971 76	Per bbl \$3 286
1909, 726½ bbl—		
Material, \$1,954 87, Less \$334.74 cr. for sks	1,620 13	
Freight	267 75	36
Hauling	96 77	12
Total, 1,326½ bbls	\$3,953 41	Average \$2 98
Distributed, 1,316½ bbls	\$3,926 41	
Inventory	\$27 00	
LIME. 1.786 5 cwt —		
Material	\$ 668 08	Per cwt. \$0 37
Freight	302 92	17
Hauling	86 52	05
Labour	208 14	11
Total	\$1,265 66	\$0 70
Distributed 1,751.5 cwt	1,240 85	
Inventory, 35 cwt	\$24 81	
BRICK, 1,379,205—		
Material	\$15,710 49	Per M. \$11 39
Freight	207 40	15
Hauling	2,134 52	1 54
Total	\$18,053 41	\$13 08
Distributed, 1,173,205	15,357 93	
Inventory, 206,000	\$2,694 48	

EXCAVATION, 3,960 cu. yds.—	Total Cost		Unit Cost
Labour	\$1,399 56	Per yard	\$0 35
Share general expenses	73 74		02
Total	\$1,473 30		\$0 37
PRESSED BRICK, 242,450 —			
Material	\$4,727 75	Per M.	\$19 50
Freight	1,055 69		4 35
Hauling	363 67		1 50
Total	\$6,147 11		\$25 35
Distributed 227	5,754 96		
Inventory, 15,450	\$392 15		
TERRA COTTA, 4-inch, 44,450—			
Material	\$5,111 75	Each	115
Hauling	251 18		005
Cost laid down	\$5,362 93		12
Labour	91 97		
Inventory	5,454 90		
TERRA COTTA, 6-inch, 17,950—			
Material	\$2,961 75	Each	165
Hauling	143 60		008
Inventory	\$3,105 35		173
DRAINAGE, 1,549 ft —			
Tile	\$141 26	Per foot	09
Labour	96 50		06
Share general expenses	11 83		01
Total	249 59		16
CONCRETE, 528 cu. yds. —			
Sand, 264 yds	\$ 329 47	Per yard	\$0 63
Gravel, 528 yds	1,261 92		2 39
Cement, 587½ bbls	1,751 24		3 31
Coal	108 12		20
Plant	117 73		22
Expenses metal and other material	1,005 10		1 90
Labour	1,050 31		1 99
Share general expenses	294 00		56
Total	\$5,917 89		\$11 20
Inventory	6 00		
RUBBLE MASONRY, 144 51 cords—			
Sand, 183 yds	\$ 228 38	Per cord	\$1 58
Cement, 213½ bbls	635 90		4 40
Lime, 165 cwt	116 87		81
Stone, 170 cords	2,949 97		20 41
Plant	132 44		91
Coal	81 09		57
Labour	1,998 51		13 83
Freight	2 35		02
Share general expenses	282 49		1 95
Total	\$6,428 00		\$44 48
WATERPROOFING MASONRY, 1,510 sq yds.—			
Material	\$331 16	Per sq. yd.	22
Freight	8 28		00
Labour	151 20		10
Share general expenses	69 24		04
Total	\$559 88		36

CUT STONE—		Total Cost	Unit Cost
Stone, 8,478 sq. ft	\$2,557 69	Per sq. ft.	30
Other material	9 60		
Freight, 8,478 sq. ft	1,835 29		22
Hauling, 8,478 sq. ft	523 78		61
Cutting, 8,478 sq. ft	7,590 80		89
Setting, 7,620 sq. ft	1,146 82		15
Plant, 7,620 sq. ft	367 89		05
Share general expenses	1,929 38		
Total	\$15,961 25		
Inventory	1,458 60		
Total	\$14,502 65		
RECUTTING STONE —			
Labour	\$349 07		
Share general expenses	49 28		
Total	\$398 35		
POINTING STONE WORK, 258 sq. yds.—			
Material	\$ 2 95	Per sq.yd	\$0 01
Labour	65 01		25
Share general expenses	9 57		04
Total	\$77 53		30
BRICK MASONRY, 1,173,205, kiln count—			
Brick, 1,173,205	\$15,357 93	Per M.	\$13 08
Cement, 516½ bbls	1,539 27		1 31
Lime, 1,385 cwt	981 23		85
Sand, 917 yds	1,144 41		97
Other material	117 08		10
Plant	647 50		55
Coal	378 42		32
Labour	7,136 50		6 08
Share general expenses	1,043 67		90
Total	\$28,346 01		\$24 16
PRESSED BRICK MASONRY, 227 M —			
Pressed brick, 227 M	\$5,754 96	Per M.	\$25 35
Lime, 201 5 cwt	142 75		62
Sand, 137 yds	170 97		76
Other material	259 39		1 11
Plant	206 02		91
Coal	216 23		95
Labour	2,995 24		13 20
Share general expenses	459 56		2 02
Total	\$10,205 12		\$44 95
CUTTING ARCHES, 11,828 Members—			
Labour	\$516 93	Per member	04
FRAMES AND CENTRES—			
Material	\$2,247 35		
Freight	126 41		
Hauling	31 40		
Labour	111 05		
Share general expenses	355 28		
Total	\$2,871 49		
STEEL, 479,402 lbs received—			
Material	\$16,289 55	Per 100 lbs	\$3 40
Freight	6,332 30		1 32
Hauling	176 06		03
Share general expenses	1,054 58		22
Total laid down	\$23,852 49		\$4 97

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STEEL ERECTED, 452,622 lbs.—	Total Cost	Unit Cost
Labour	\$1,911 21	42
Coal	162 18	03
Cost to erect	\$2,073 39	45
Total	\$25,925 88	
Inventory	1,181 86	
Total	\$24,744 02	
Roof, 140 Squares—		
Material	\$1,025 77	Per square \$7 32
Labour	840 42	6 00
Freight	226 99	1 62
Hauling	43 20	32
Coal	27 03	19
Share general expenses	301 65	2 15
Total	\$2,465 06	\$17 60
CORNICE, 550 lineal ft —		
Material	\$541 97	
Labour	189 62	34
Share general expenses	103 29	18
Total	\$834 88	
VERANDAHS —		
Material	\$131 88	
Freight	22 41	
Hauling	3 00	
Share general expenses	22 20	
Total	\$179 49	
FORMS FOR REINFORCED FLOORS—		
Material	84 24	
Freight	27 26	
Hauling	4 64	
Share general expenses	16 40	
Total	\$132 54	
DRILLED WELL, 392 ft. 9 ins —		
Casing, etc	\$179 44	
Freight	11 96	
Total	\$191 40	
TILE—		
Inventory, 1908, 3,506 tile	\$319 67	
Distributed, 1,549 tile	141 26	
Inventory, 1,957 tile	\$178 41	
COOK CAMP—		
Inventory, 1908	\$97 80	
Material, 1909	16 65	
Total	\$114 45	
MAINTENANCE OF CAMP—		
Coal, Total	\$108 12	

Information Pertaining to the Work.

No. of cubic feet of common brick masonry	64,572
Kiln count brick used	1,173,205
Number of brick per cubic foot of wall	18 15
Number of square feet of pressed brick masonry	32,441
Number of pressed brick used	227,000
Number of pressed brick per square foot	7

Labour.

Number of common brick laid .	1,173,205
Number of bricklayers' hours	6,981 5
Number of brick per man per hour	168 4
Number of pressed brick laid	227,000
No. of bricklayers' hour	3,807 5
No. of brick per man per hour	59 6
Number of cubic feet of rubble masonry	14,451
Number of masons' hours	2,706 5
Number of cubic feet per man per hour	6
Number of square feet of cut stone masonry	7,620
No. of masons' hours	1,384
Number of square feet of cut stone masonry per man per hr	5 5

Waterproofing.

1 barrel of pitch and one-fifth of a barrel of tar will waterproof 500 square feet of wall.

This same amount of material together with 300 square feet of rubberoid will lay 300 square feet of damp course

Our cost of labour in each case was approximately 10 cents per square yard.

Inventory of Stock on Hand, December 31, 1909

Plant, estimated value of Gilbreth scaffold, hoist, plank, cables, tools, etc.	\$3,000 00
Sand, 490½ yds., at \$1 248	612 14
Gravel. 1,200½ yds., at \$1 51, 60 yds. crushed, at \$2.39	1,962 82
Rubble, 9 45 cords, at \$17 35	163 95
Cut Stone, 858 sq ft., at \$1.70	1,458 60
Coal, 30 tons, at \$5.46	163 80
Cement, 10 bbls., at \$2 98	29 80
Brick, 206 M., at \$13 08	2,694 48
Lime, 35 cwt., at 70cts	24 50
Pressed Brick, 15,450, at \$25 35	392 15
Steel, 23,780 lbs., at \$4 97	1,181 86
Terra Cotta, 4-inch, 44,450, at 12 cts	5,362 93
Terra Cotta, 6 inch, 17,950, at \$.173	3,105 35
	\$20,152 38

Total Expenditure on Ponoka Asylum to December 31, 1909.

For 1908—		
Classified	\$17,830 28	
Departmental additions	943 92	
		\$18,774 20
For 1909—		
Administration and expense	\$6,076 16	
Temporary buildings	242 67	
Plant	4,363 86	
Coal	1,116 09	
Sand	1,726 10	
Gravel	1,819 42	
Rubble	717 77	
Cement	1,981 65	
Lime	1,127 93	
Brick	18,052 41	
Excavation	1,399 56	
Pressed brick	6,147 11	
Terra Cotta, 4-inch	5,454 90	
Terra Cotta, 6-inch	3,105 35	
Drainage	96 50	
Concrete	1,253 18	
Rubble masonry	2,000 86	
Waterproofing	490 64	
Cut stone	13,663 98	
Recutting stone	349 07	
Pointing stone work	67 96	
Brick masonry	7,391 31	
Pressed brick masonry	3,254 63	
Cutting arches	516 93	
Carried Forward	\$82,416 04	\$18,774 20

	Brought forward	\$82,416 04	\$18,774 20
Frames and centres		2,516 21	
Steel		24,709 12	
Roof		2,136 38	
Cornice		731 59	
Verandahs		157 29	
Reinforced floors		116 14	
Well		191 40	
Cook camp		16 65	
		-----	\$112,990 82
Total to date			----- \$131,765 02

COURT HOUSE, EDMONTON.

After work being closed down for the winter it was resumed by the contractor in the early part of the summer.

The entire exterior of this building is dimension stone from the Calgary quarries. Owing to the large local demand during the season for this class of stone a supply suitable for this contract was limited to carrying the exterior walls up to near the second floor line.

The structural steel for the interior of the building is erected and rivetted.

Arrangements are being made by the contractor for a plentiful supply of stone for the ensuing year, when it is expected that the exterior of the building will be completed.

COURT HOUSE, FORT SASKATCHEWAN.

A Court House was erected and completed ready for occupation at the town of Fort Saskatchewan.

This building is of solid brick two stories in height with a deep basement, the walls of which are rubble masonry built of field boulders. The dimensions of the building are: length 48 feet 10 inches, and width 32 feet 7 inches.

The location of the building is immediately on the brow of the hill looking down the Saskatchewan River and facing east on Government Avenue.

The construction of this building, which was erected by day labour, was commenced the last week in June and completed ready for occupation the first of December.

The brick and stone were secured locally, the brick being manufactured in the town. Sufficient good building sand was secured by digging a pit on the property near the building, which was afterwards filled with building refuse and covered with earth. A plentiful, permanent supply of good water was also obtained by digging a well 18 feet deep on the property.

The detailed costs of the building are shown as follows:

Fort Saskatchewan Court House.

Detailed Statement of Expenditure in Material and Labour, 1909.

EXCAVATION, 330.63 cu. yds.— Labour	Total Cost	Unit Cost	
	\$88 62	Per cu yd	268
CONCRETE, 57 77 cu yds —			
Sand and gravel, 71 yds	\$141 33	Per yard	\$2 44
Cement, 72.2 bbls	231 15		4 00
Labour	174 20		3 01
Share general expenses	79 30		1 37
	----- \$625 98		----- \$10 82

CUT STONE, 560 lineal ft —	Total Cost		Unit Cost
Stone	\$313 67	Per foot	\$ 56
Cutting	851 90		1 59
Other expenses, as hauling, unloading, etc	76 58		13
Share of general expenses	58 50		10
	\$1,300 65		\$2 38
RUBBLE MASONRY, 26 5 cords —			
Sand, 33 yds	\$ 8 57	Per cord	\$ 323
Cement, 35.71 bbls	112 84		4 25
Lime, 3,990 lbs	23 14		98
Stone, 21 cords	212 00		10 09
Labour	439 40		16 58
Share of general expenses	100 00		3 77
	\$895 95		\$35 993
BRICK MASONRY—			
Brick, 74,000	\$755 00	Per M	\$10 20
Sand, 58 yds	15 08		20
Cement, 29.57 bbls	94 54		1 27
Lime, 17,460 lbs	101 99		1 37
Labour	601 20		8 12
Share of general expenses	171 84		2 32
	\$1,739 65		\$23 48
PLASTERING, 1,115 sq. yds.—			
Wood fibre, 200 casks	\$216 13	Per sq yd	\$ 193
Labour	255 35		22
Share of general expenses	79 25		08
Total	\$550 73		493
LATHING, 1,115 sq. yds —			
Laths	\$118 75	Per sq yd	\$ 106
Labour	50 17		045
	\$168 92		151
PAINTING AND INSIDE TRIMMING —			
Material	\$134 03		
Labour	244 36		
	\$378 39		
CARPENTERING—			
Lumber, 32,586 B M.	\$ 805 26		
Doors and window frames	195 62		
Shingles, 22½ M.	72 77		
Other materail	261 02		
Labour	1,116 04		
Share of general expenses	237 74		
	\$2,688 45		
IRON AND HARDWARE	\$214 84		
COAL, 2.49 tons	\$11 50	Per ton	\$4 62
CONTRACTS—			
Electric wiring	\$123 30		
Sheet metal work and heating .	452 00		
Labour in connection with drainage..	24 25		
	\$599 55		
PLANT AND MISCELLANEOUS MATERIAL .	\$121 59		

Total Expenditure to December 31, 1909

Excavation, 330.63 cubic yards	\$ 88 62
Concrete, 57.77 cubic yards	625 98
Cut stone, 560 ft	1,300 65
Rubble masonry, 26.5 cords	895 95
Brick masonry, 74,000	1,739 65
Plastering, 1,115 sq. yds	550 73
Lathing, 1,115 sq. yds	168 92
Carpentering, labour and material	2,688 44
Painting	378 39
Iron and hardware	214 84
Coal, 2.49 tons	11 50
Electric wiring	123 30
Drainage and sheet metal work	476 25
Plant and miscellaneous material	121 59
Total	\$9,384 81
Of this amount expended for labour	\$5,242 15
Of this amount expended for material	4,142 66
Cubical contents of building, 59,829 cu. ft., cost per cu. ft.	\$0 157

COURT HOUSE, LETHBRIDGE

The concrete foundations for this building were placed by day labour in the early part of the summer, and in July contracts were awarded for the various works to complete the building. The basement walls above ground, which consist of coursed sandstone ashlar from a quarry on the Old Man River between Macleod and Lethbridge, are complete, and the first storey walls partly erected. Some delay is now experienced in securing suitable pressed brick. However, it is expected that the building will be ready for occupation by the end of 1910.

TELEPHONE BUILDING, LETHBRIDGE.

This building located on Dufferin Street has a frontage of 27 ft. 2 inches, a depth of 49 feet 11 inches and is two stories in height. It was constructed by day labour, except the sheet metal work, plumbing, heating and wiring.

The basement walls and floor are of concrete and the upper walls of solid brick. The interior is of wood construction, and the building is heated by steam.

Construction was commenced in June and completed on the 18th of December, on which date the telephone exchange moved from their previous quarters into the new building.

The basement is divided into furnace room, battery room, power and store rooms. On the first floor are the public offices and officials' rooms. The upper floor is entirely occupied by the automatic telephone equipment.

The building contains 47,437 cubic feet, and cost at the rate complete of 18 cents per cubic foot.

JAIL, LETHBRIDGE

This building, on which construction was commenced during the past summer, is located about four miles directly east of the City of Lethbridge, on the N W $\frac{1}{4}$ of Sec. 35, Tp. 8, R. 21, west of the 4th meridian, and has a ground floor area of 13,227 sq. ft.

The excavation was awarded by tender to the lowest bidder, and as soon as complete, the concrete foundation walls were erected.

by day labour. Temporary buildings necessary to house the workmen and carry on the work were also erected. These consist of office, kitchen and dining-hall, sleeping camp, tool and cement sheds. The farmhouse originally on the property, which is in a good state of repair, is also used as living quarters for the general foreman, and the other farm buildings are used for carpenter shop, storehouse and stables.

As the necessary materials were not to hand to continuously carry on the work, nothing further was done in the way of construction. Building materials are now being received, consisting of brick, stone, steel window and door guards and cell iron work, so that all work can be vigorously carried on during the ensuing season.

The following table shows the details of work done:

Cost of Material and Labour in Placing Concrete Foundations in Jail Building, Lethbridge.

CONCRETE IN PLACE, 643 cu yds —	Total Cost	Unit Cost
Gravel, 675 yds	\$1,687 50	per cu yd. \$2 624
Cement .	2,354 32	3 661
Labour, mixing and placing.	789 63	1 228
Lumber	270 65	421
Nails	10 00	016
Erecting forms	482 78	751
Stripping forms	112 28	175
Sundries .	30 96	048
Total	\$5,738 12	\$8 924
Backfilling	\$ 69 12	
Frost protection	126 67	
Excavation, common, 1,727 yds.	863 50	50
Excavation, footings, 594 yds	475 20	80
Excavation, lime pits, 57 yds	28 50	50
Total	\$1,562 99	
REPAIRS TO DWELLING—		
Labour .	\$69 50	
Material	7 75	
Total	\$77 25	
PLANT—		
Labour	\$234 15	
Gasoline pump	435 65	
Lumber	19 04	
Pipe line and sundries	413 18	
Total	\$1,102 02	
TEMPORARY BUILDINGS—		
Office, 25x16 ft		
Labour	\$40 40	
Lumber	55 90	
Nails	3 65	
Roofing and sundries	14 40	
Total	\$114 35	
Cement House, 18 ft. x 36 ft —		
Labour	\$33 375	
Lumber	45 87	
Nails	3 50	
Roofing and sundries	16 80	
Total	\$99 545	

Dining Hall, 22 ft. x 43 ft., and Bunk House,
22 ft. x 40 ft.—

Labour	\$470 99
Lumber	684 85
Nails ..	19 01
Roofing and sundries.	200 23
Total	<u>\$1,375 08</u>

UNLOADING TWO 75 H P. BOILERS—

Labour .	\$39 50
Material	3 00
Total	<u>\$42 50</u>

Repairs to Road	<u>\$177 10</u>
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UNLOADING IRON GUARDS—

Labour	<u>\$13 00</u>
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CUT STONE—

Material	\$ 718 16
Labour cutting	3,436 75
Total	<u>\$4,154 91</u>

Statement of Expenditure on Jail Construction, Lethbridge.

	MATERIAL	LABOUR	TOTAL COST
Excavation, 2,378 cu. yds		\$1,367 20	\$1,367 20
Gravel, 1,395 cu yds	\$3,487 50		3,487 50
Sand, 563½ cu yds	1,268 44		1,268 44
Cement, 1,128 bbls	3,045 60		3,045 60
Brick, 80,000	720 00		720 00
Lumber, 72,604 B M	1,054 27		1,054 27
Lumber	278 78		278 78
Lime, 60,000 lbs	210 00		210 00
Two vault doors	260 00		260 00
Cut stone	718 16	3,436 75	4,154 91
Iron and general hardware	625 72		625 72
Coal, 7 tons	42 42		42 42
Steam piping and fittings	51 28		51 28
Plant, gasoline engine and pump	435 65		435 65
Gasoline	12 76		12 76
C P R. siding, construction	108 52	442 16	550 68
Freight	1,221 06		1,221 06
Office and outbuilding incidentals.	151 80		151 80
Teaming cement and brick		130 60	130 60
General labour		3,943 44	3,943 44
Superintendent and clerk		503 70	503 70
Transportation	33 80		33 80
Advertising	74 36		74 36
Telephone and office expenses	80 79		80 79
Team hire	237 50		237 50
Totals	<u>\$14,118 41</u>	<u>\$ 9,823 85</u>	<u>\$23,942 26</u>

Credit by

Cement sacks	\$352 70
Retained on contracts.	488 65
	<u>\$841 35</u>

\$23,942 26
841 35

Total Net Expenditure

\$23,100 91

LAND TITLES BUILDING, CALGARY.

This building, the outside work of which was almost complete at the end of last year, was entirely finished the middle of December, and the officials of the Land Titles and Registrar with their staff moved from the old quarters into the new building on December 18th

As previously stated, this building is entirely fireproof. The partitions are constructed of terra cotta tile and the floors of reinforced concrete overlaid in the public office with rubber tile, while the floors of the front corridor are of marble. The base, stair treads and risers are also of the same material, the latter supported on metal framework. The electric wiring is run in conduit, and the counter, filing cabinets, etc., are of steel.

This building, with the exception of the sheet metal, plumbing, heating, plastering and wiring, was constructed by day labour. The heating is by live steam generated at high pressure and reduced through a reducing valve to five pounds before entering the system. The temperature of each room is independently regulated by automatic temperature control.

HEATING BUILDING, CALGARY.

In order to eliminate the necessity of erecting boilers with the necessary machinery for heating and ventilating in each of the provincial public buildings, which may be constructed in the block reserved for these, it was decided to erect a central heating and power station immediately in the rear of the Land Titles Building.

This building, which has a frontage of 43 feet 6 inches and a depth of 59 feet, is located centrally in the rear of and at a distance of 80 feet from the Land Titles Building, to which it is connected by a tunnel of concrete construction through which are conveyed the steam and air pipes and electric wiring. The boiler room in the basement is underground, and the top of the coal bunkers of a capacity of 75 tons are level with the sidewalk grade and have scuttles on the sidewalk floor. The boiler room has space for three 75 horse power boilers, though at present but one is installed. On the top, or ground floor, are the transformer room, workshop and attendant's room.

The work of excavation was commenced in March, and the building, which is of stone throughout, was completed and in service in November. The construction work was done by day labour.

As the erection of future buildings require, connection will be made with them by tunnel, and light, heat and power conveyed as required.

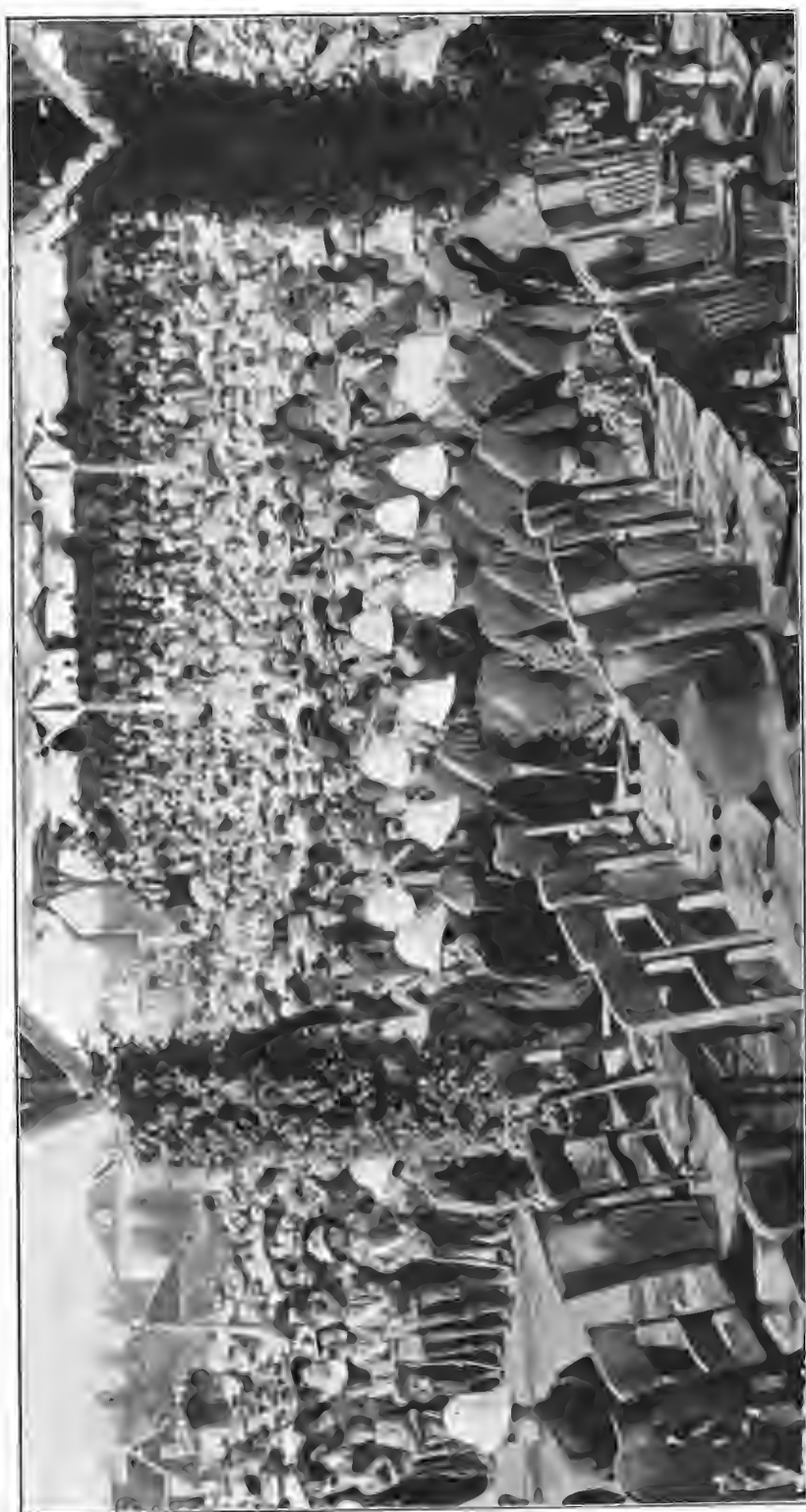
AUTOMATIC TELEPHONE SUB-STATION, CALGARY.

This building constructed by day labour was commenced in August and completed in October; it is located east of the Elbow River and central to the east end of the city. It has a frontage on Atlantic Avenue of 20 feet 6 inches and a depth of 32 feet 4 inches, and consists of a basement and one upper storey. The basement is used entirely for heating purposes and storing fuel, while in the upper storey is installed the Automatic Telephone equipment.

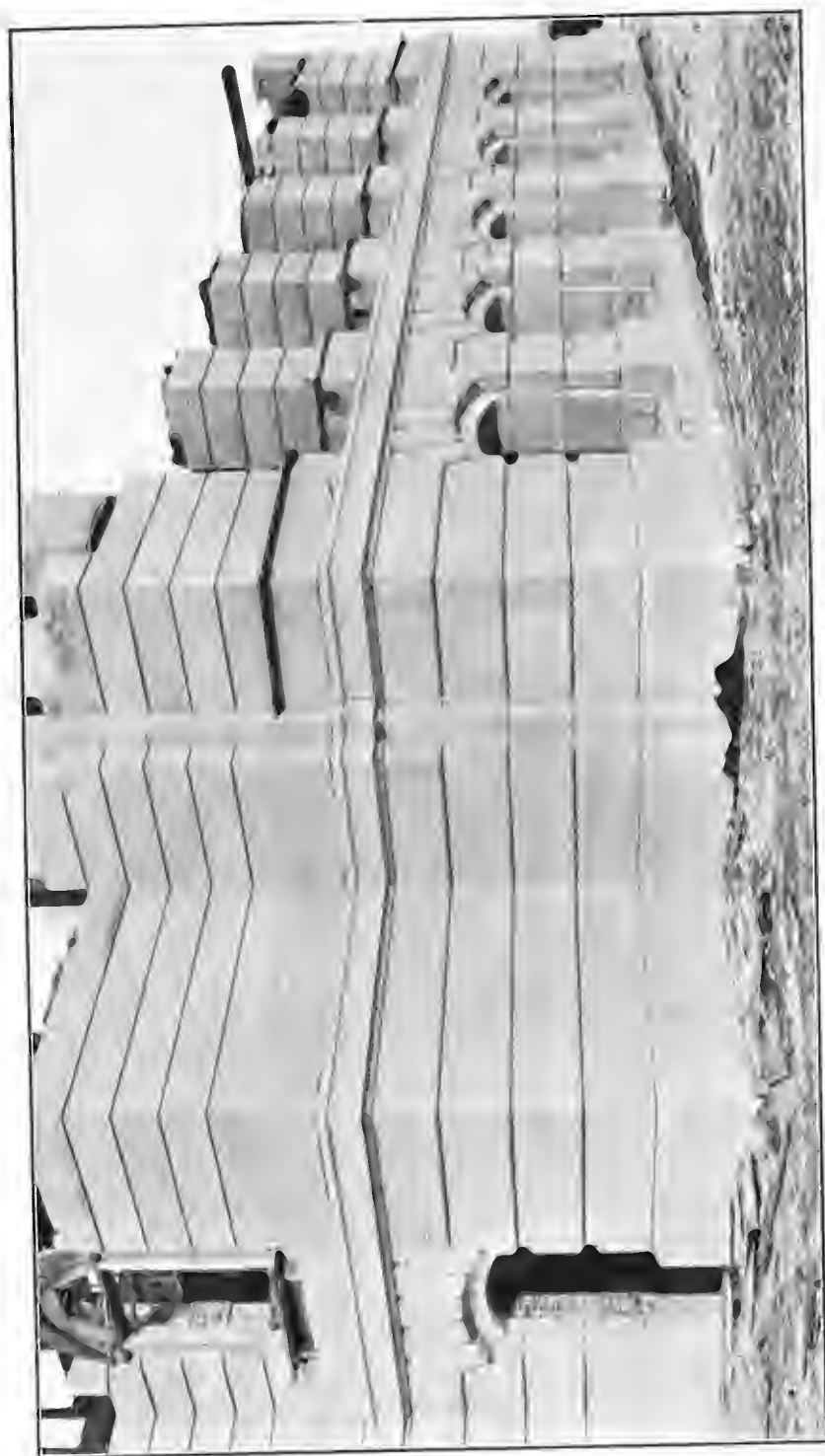
The building consists of two distinct shells from the basement floor up. The outer walls are for the basement concrete, and the upper walls of brick 13 inches in thickness. Inside, and with a space of 18 inches clear on all sides of the building, are constructed the inner



LAYING CORNER STONE, NEW PARLIAMENT BUILDINGS, EDMONTON, OCT. 1ST, 1909.
ARCH AT ENTRANCE TO GROUNDS.



LAYING CORNER STONE NEW PARLIAMENT BUILDING, EDMONTON, OCTOBER 1ST, 1909. LOOKING TOWARDS GRAND STAND.



NEW PARLIAMENT BUILDINGS, EDMONTON.
VIEW OF STONE WORK. FIRST STORY, GRANITE. UPPER STORIES, CALGARY SANDSTONE.



NEW PARLIAMENT BUILDINGS, EDMONTON.
GENERAL VIEW OF BUILDING AND MATERIAL YARD FROM THE WEST.



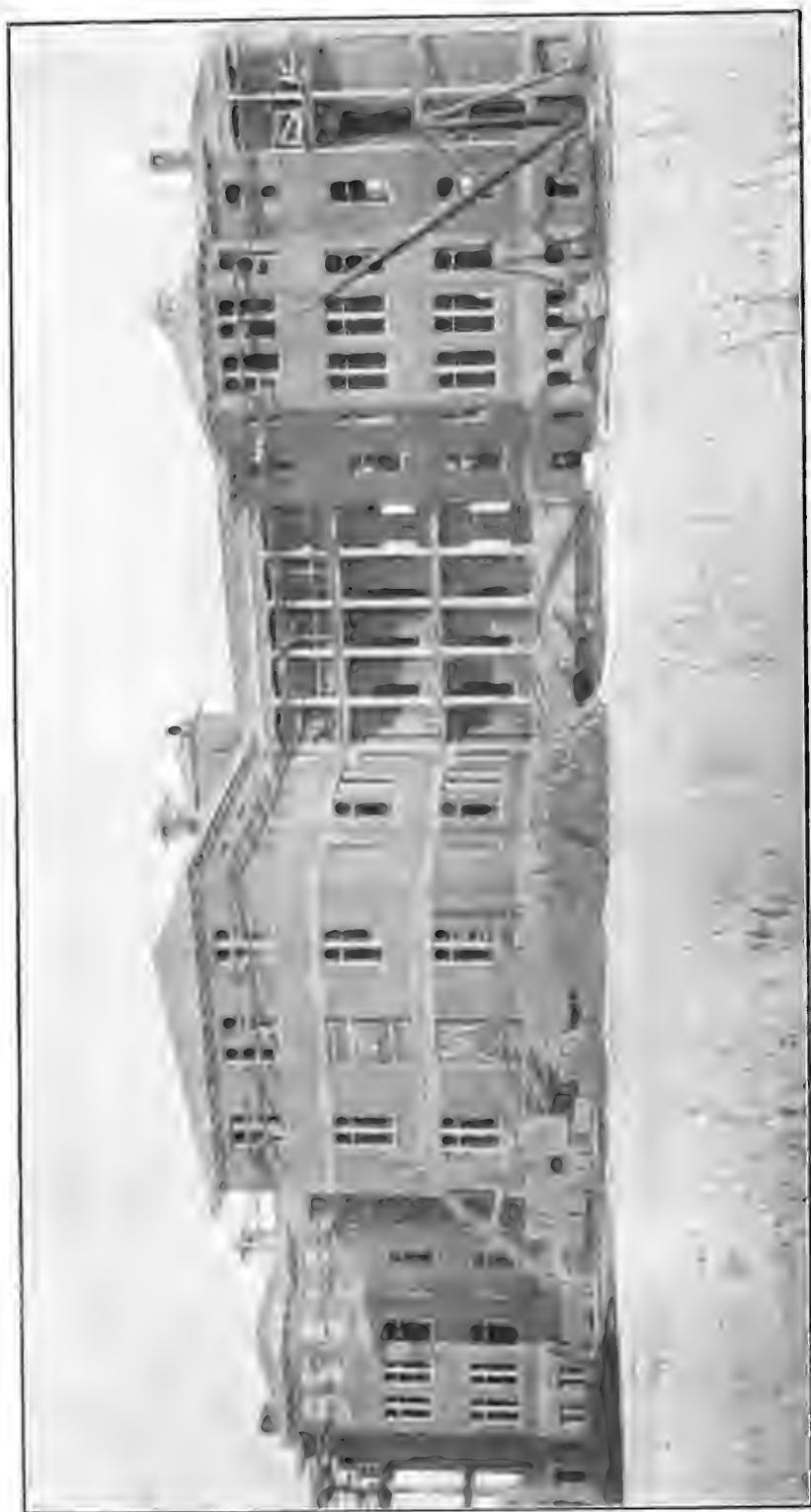
NEW PARLIAMENT BUILDINGS, EDMONTON.
INTERIOR VIEW OF DOME AND STEEL WORK.



NEW PARLIAMENT BUILDINGS, EDMONTON.
VIEW OF BUILDING AND MATERIAL YARD FROM WEST SIDE.



LAND TITLES BUILDING, CALGARY.



INSANE ASYLUM NEAR PONOKA. FRONT VIEW FACING WEST.



TELEPHONE SUPPLIES WAREHOUSE AND PUBLIC WORKS OFFICES, CALGARY.



AUTOMATIC EXCHANGE TELEPHONE SUB-STATION, CALGARY--EAST END.



AUTOMATIC TELEPHONE EXCHANGE BUILDING, LETHBRIDGE.



NEW COURT HOUSE, EDMONTON.



COURT HOUSE, TOWN OF FORT SASKATCHEWAN.



NEW PARLIAMENT BUILDINGS, EDMONTON.
VIEW OF STEEL WORK FROM FRONT OF BUILDING.



HEATING AND POWER STATION FOR LAND TITLES BUILDING AND NEW COURT
HOUSE, CALGARY.

walls of hollow terra cotta tile. The entire floors and ceiling are of reinforced concrete, thus forming a fireproof building throughout.

The above type of construction was employed in order to obtain as nearly as possible a uniform constant temperature in the room containing the telephone equipment. No direct heat is conveyed into the equipment room but is directed into the 18 inch surrounding passage. This air space in summer will also have the effect of modifying extreme outside temperatures.

No attendants are required in connection with the operation of this sub-station, other than that necessary to maintain in the winter a suitable temperature.

A similar building is now being constructed in the west end of the city.

TELEPHONE WAREHOUSE AND OFFICE BUILDING, CALGARY

The construction of this building, which is located on Fourth St. West, adjacent to the C. P. R. warehouse tracks, from which track facilities are secured for direct loading to and from cars, was commenced in the fall of 1908. Work was continued through the winter and the building was completed and ready for occupation in April of the present year.

The exterior construction is of Calgary sandstone, the front of coursed crandelled ashlar, while the sides and rear walls are of rubble masonry. The interior is of wood construction with lath and plaster finish.

The building has a frontage on Fourth Street West of 33 feet 9 inches and a depth of 74 feet 3 inches, and is two stories in height with a full basement of 10 feet clear headroom, the whole heated by steam and fitted with the necessary plumbing fixtures on both floors.

The basement and first floor are used by the Telephone Branch as a warehouse to carry supplies, the basement for the heavier grades of material, while on the first floor is stored the lighter class of supplies and at the front is the storekeeper's office. An elevator connects the basement with the first floor.

The second floor is divided into commodious office rooms which are occupied by the local office of the Department of Public Works.

UNIVERSITY OF ALBERTA, STRATHCONA (FACULTY OF ARTS BUILDING).

Instructions were received from the University Senate to proceed with the construction of a building for the Faculty of Arts.

Tenders were advertised for clearing and excavating, and a contract awarded to the lowest bidder. The footing trenches were excavated and concrete foundation walls constructed by day labour. The first concrete was placed November 1st and the entire work completed, except some light upper walls, the first week of January, 1910.

Contracts were also awarded for one million brick to be delivered during the winter.

The detailed cost of the above work is shown in the following

Statement of Expenditure on Construction of Arts Building, Alberta University, 1909.

TEMPORARY BUILDINGS—	Total Cost	Unit cost
Office, Cement and Tool House	\$ 275 06	
CEMENT—		
1,851 bbls	4,257 30	
7,404 sacks	740 40	
Freight	1,165 00	
Unloading and teaming	214 36	
	\$6,377 06	
Credit, 6,730 empty sacks	673 00	
	\$5,704 06	\$3 081
Gravel, 1,725 cu yds	\$2,715 69	\$1 574
Sand, 750 cu yds	\$1,097 05	\$1 462
Brick, 204,576	\$1,841 18	\$9 00
Lumber, 39,159 B.M	\$871 90	\$22 265
Excavation, 10,123 cu yds	\$4,876 61	481
Backfilling	\$ 659 37	
Concrete in place, 1,412 cu. yds —		
Cement, 1,588½ bbls	\$4,895 12	\$3 466
Sand, 366 cu yds	535 34	379
Gravel, 1,412 cu yds	2,229 91	1 579
Lumber in forms, 17,995 ft	400 66	283
Nails, 550 lbs	20 18	014
Iron	55 12	039
Sundries	101 85	072
Coal, 45 tons	135 31	095
Maintenance of plant	144 71	102
Operating plant	395 39	28
Concrete labour	1,492 13	1 056
Labour in forms	885 63	627
Office expense (including coal)	128 42	09
Watchman	128 78	091
	\$11,548 55	\$8 178

Total Expenditure on Arts Building, Alberta University, 1909

	MATERIAL	LABOUR	TOTAL COST
Cement, 1,851 bbls	\$4,257 30		\$4,257 30
Sacks, 7,404	740 40		740 40
Teaming, etc		\$214 36	214 36
Gravel, 1,725 cu. yds.	2,700 61		2,700 61
Sand, 750 cu. yds	1,087 50		1,087 50
Coal, 51 tons, 1,390 lbs	155 45		155 45
Lumber, 39,159 B M	871 90		871 90
Door and window frames		18 02	18 02
Nails.	33 20		33 20
Iron	55 94		55 94
Brick, 204,576	1,841 18		1,841 18
Sewer and water connection	167 50	578 60	746 10
General expenses	17 56		17 56
Freight	1,205 60		1,205 60
Advertising	118 39		118 39
Office expense and watchman.		335 79	335 79
Labour (general)		4,075 40	4,075 40
Temporary buildings	106 79	168 27	275 06
Tools	53 06		53 06
Maintenance of plant	105 19		105 19
Ferry charges	4 25		4 25
Photographing plans	43 50		43 50
Sundries	111 71		111 71
Excavating contract		4,180 05	4,180 05
Totals	\$13,724 03	\$9,523 49	\$23,247 52
Credit 6,730 sacks returned.			673 00
Total Net Expenditure			\$22,574 52

Statement of Expenditure on Dormitory Building, Alberta University, 1909.

MATERIAL —		
Gravel, 1,031½ cu. yds	\$1,599 21	
Clearing site and road, 1 58 acres (contract)	44 20	
		\$1,643 41
LABOUR —		
Labour	\$30 48	
Office and watching	50 00	
		80 48
Total Expenditure		\$1,723 89

REPORT OF CEMENT TESTING LABORATORY.

All cement purchased during the season was tested in the cement testing laboratory

There was a total of 64 cars of cement purchased, all of which was supplied by the two cement factories of the Province

The results of the tests are as follows:

(Cement supplied by "A" Company)

TEST FOR FINENESS.

Number of tests 22, average per cent. passed on No. 70 sieve 99 6.
 Number of tests 32, average per cent passed on No. 80 sieve 99 2.
 Number of tests 32, average per cent passed on No 90 sieve 95 5

BOILING TEST.

39 cars tested good.
 4 cars tested poor.

TENSILE TEST

78 tests, 1 day in air, 6 days in water, average 536 lbs
 69 tests, 1 day in air, 13 days in water, average 602 lbs
 64 tests, 1 day in air, 27 days in water, average 603 lbs

(Cement supplied by "B" Company)

TEST FOR FINENESS

Number of tests 11, average per cent passed on No. 70 sieve 99.6
 Number of tests 16, average per cent passed on No. 80 sieve 98.9
 Number of tests 16, average per cent passed on No. 100 sieve 94.4

BOILING TEST

20 cars tested good
 1 car tested poor.

TENSILE TEST

39 tests, 1 day in air, 6 days in water, average 436 lbs
 35 tests, 1 day in air, 13 days in water, average 486 lbs
 27 tests, 1 day in air, 27 days in water, average 609 lbs

The above report I respectfully submit,

J. CHALMERS,

Structural Engineer

SURVEYS BRANCH

EDMONTON, February 28, 1910

JOHN STOCKS, Esq.,
Deputy Minister,
Department of Public Works,
 Edmonton, Alta

SIR,—I have the honour to submit the following report regarding work done by the Surveys Branch of the Department of Public Works during the year 1909

The following tabulated statement shows in a concise manner the volume of the work of various sorts. This shows a very considerable increase over the preceding year all the way through:

Surveys required brought forward from 1908	403
Surveys asked for during 1909	644
Number of surveys and examinations made	626
Number of surveys asked for and found to be unnecessary on examination	48
Number of surveys made by district surveyors without instructions	66
Number of surveys not completed and carried forward to 1910 list	451
Plans prepared and filed in the land titles offices	382
Certificates of Title received for roads	376
Certificates of Title received for building sites	21
Transfers of land received for roads and sites	2
Transfers issued covering roads no longer required	148
Amount paid as compensation for right of way, etc.	\$17,144.35

LEASE OF ROAD ALLOWANCES.

Number of new applications for lease of road allowances	61
Number of applications granted	30
Number of applications refused	31

Number of leases issued during year 1908 including free leases issued as compensation for surveyed roads .	169
Amount received as rental for leased roadways .	\$553.50

The season was a very favourable one for work and although there were no additional parties placed in the field, the amount of work done was larger than in any previous season, and the work was done at less cost.

In the North Alberta District, the work in the field was carried on under the direction of Mr. A. P. C. Belyea, D.L.S. Mr. P. N. Johnson, D.L.S., after completing drainage surveys, went, in the latter part of the season, into the Olds District and made a number of road diversion surveys. In the various other districts no changes in the staff occurred.

The work under The Drainage Act was carried on by Mr. P. N. Johnson, D.L.S., who was appointed Drainage Engineer in place of Mr. Lambert Lynn, resigned. Mr. Johnson's report is given below and shows that the work done was largely confined to surveys as the amount available for the work was insufficient to enable any large work to be undertaken.

A Ditches Act enabling private parties to proceed with small ditches seems to be advisable and is, I believe, contemplated. Below are reports of the work in the several districts together with the report of the Drainage Engineer.

I have the honour to be, Sir,

Your obedient servant,

L. C. CHARLESWORTH,

Director of Surveys.

NORTH ALBERTA DISTRICT

ROAD DIVERSIONS

N. W. section 11-52-25w4.
 S. E. section 32-50-25w4
 W. $\frac{1}{2}$ section 15-52-27w4
 W. $\frac{1}{2}$ section 32-51-27w4.
 N. E. section 23-51-1w5
 N. E. section 2-53-1w5
 N. $\frac{1}{2}$ section 12-53-1w5.
 N. W. section 5-53-1w5
 N. W. section 7-53-27w4
 W. $\frac{1}{2}$ section 23-53-27w4
 N. W. section 8-53-27w4
 S. E. section 4-52-1w5
 W. $\frac{1}{2}$ section 4-52-1w5
 N. E. section 5-52-1w5.
 S. $\frac{1}{2}$ section 6-52-1w5
 S. W. section 32-51-2w5.
 S. W. section 34-51-2w5
 N. W. section 27-51-2w5.
 W. $\frac{1}{2}$ section 12-53-3w5
 N. W. section 15-53-4w5.
 N. E. section 19-53-3w5
 E. $\frac{1}{2}$ section 10-54-4w5.
 S. $\frac{1}{2}$ section 17-55-2w5
 W. $\frac{1}{2}$ section 19-56-1w5.
 Sections 8, 10 and 11-58-3w5
 S. W. section 16-55-25w4
 N. W. section 34-54-25w4
 S. E. section 3-55-25w4
 Sections 17/18/20-55-25w4.
 Sections 10/11/14-55-25w4
 S. W. $\frac{1}{2}$ section 16-55-24w4.
 S. W. $\frac{1}{2}$ section 24-49-1w5

N.W. section 32-48-1w5.
 S.E. section 30-49-23w4.
 S.W. section 36-48-2w5.
 S.E. section 17-49-23w4.
 S.W. section 6-52-24w4.
 S.W. section 7-52-24w4.

NEW ROADS.

N. of sections 1/2-51-27w4.
 N. of section 15-51-27w4.
 Sections 28/29/32/33-52-1w5.
 Blind line n. of sections 3/4/5-52-4w5.
 Blind line n. of section 17-53-4w5.
 Centre of section 1, etc, 56-2w5.
 Through n. $\frac{1}{4}$ of township 56-2w5.
 Klondike Trail, section 6-58-2w5, and sections 1/12/11-58-3w5.
 Blind line n. of sections 1/2-55-25w4, and section 6-55-24w4.
 Sections 2/11-50-27w4.
 Centre of section 18-50-26w4.
 Blind line north of sections 29/30-49-23w4.

CHANGE IN SURVEYED ROADS.

Centre of section 24-50-26w4.
 N.E. section 6-51-26w4.
 Section 35-49-28w4.
 N.W. section 28, s.w. section 33 and n.w. section 29-49-1w5.
 Section 36-49-2w5.

EXAMINATIONS

S.W. section 32-51-24w4.
 Sections 25/36-50-28w4.
 E. of section 19-52-1w5.
 Blind line north of section 4-51-1w5.
 Road allowance west of section 9-51-1w5.
 Road allowance north of section 9-51-1w5.
 Between sections 27/28-52-2w5.
 Road allowance east of section 25-53-3w5.
 Road allowance west of section 19-53-3w5.
 Road allowance west and north of 11, and west of 13/24-53-3w5.
 Trail through 27/34-57-2w5.
 Road allowance east and west of section 5-60-27w4.
 Road allowance south of section 18-50-26w4.
 Road allowance west of section 14-50-28w4.

SPECIAL

Retracement of survey in sections 17/20-52-24w4.
 Court House site, Fort Saskatchewan.
 Sections 25/36-53-24w4, Fort Saskatchewan, trail retracement.

EDMONTON, February 24, 1910.

L. C. CHARLESWORTH, Esq., D.L.S.,
Director of Surveys
 Edmonton.

SIR,—I beg to submit the following report in connection with drainage surveys made by me during the season of 1909.

My party was organized on the 26th of May and continued in the field engaged on drainage work until the 14th of September, when I received instructions to discontinue this work and to proceed with my party to the Olds District to undertake road surveys.

I attach hereto a list of the drainage schemes examined into, each of which has been reported on individually.

In all cases where work was staked out traverses were made of

the ditch line, in order that in the event of the stakes being knocked out, etc., the line might be picked up again without difficulty. Complete traverses of the flooded area were also made in each case.

Your obedient servant,

P N JOHNSON,
Drainage Engineer

Drainage of Horse Lakes and Long Lake in township 53-25w4.
Drainage of road allowances east of sections 5 and 8, township 55-25w4.
Drainage of road allowance between sections 8 and 17, township 55-25w4.
Drainage of road allowance between sections 17 and 18 and 19 and 20, township 55-25w4.
Drainage of road allowance between sections 5 and 6, township 56-26w4.
Drainage of swamp lands in townships 55 and 56, range 24w4.
Drainage of road allowances, etc., in township 54-24w4.
Drainage of swamp land in section 36, township 51-3w5.

VEGREVILLE, December 29, 1909.

JOHN STOCKS, Esq.,
Deputy Minister of Public Works,
Edmonton

SIR,—I have the honour to submit the following report of the surveys made and the other work done in the Public Works District of Vegreville during the past season

The first part of the year was spent in preparing and completing the returns and plans of the previous season's surveys

On April 21st I organized my party and made various surveys west of Brosseau, but as soon as the ferry was launched at Victoria I crossed the river and did all the work in the north-west corner of my district which stood over from the previous fall on account of my being unable to cross the river owing to ice. I then moved east and surveyed the trail between Edwand and Washatoo; from here I went to St Paul de Metis and surveyed out the trail from there to the south-easterly side of Moose Lake. I surveyed also a new road from St Paul de Metis easterly to the settlement on Dog Rump Creek, after which I moved south of the river to the Canadian Northern Railway and did all the work north and south of same between Lloydminster and Mannville. I then moved to the southern limit of my district and worked west and north to the railway again and easterly along same to join with the work I had done earlier in the season.

This completed the present work in my district and I closed up field operations at Vegreville on November 6th.

The survey of the roads about Clarkville I was forced to let stand over owing to snow, and the fact that I could not get my outfit across the river

The following is a list of the work done which consists of the survey of new roads, road diversions, re-surveys and drains, and the examination and reports of roads, etc

NEW ROADS.

New road from Edwand P.O. to Washatoo P.O.
New road from St. Paul de Metis to Moose Lake.
New road north of section 13-59-9w4.
New road north of section 18-59-8w4.
New road north of section 15-50-6w4.
New road north of the s $\frac{1}{2}$ of section 28-52-1w4.
New road north of section 14-47-6w4.
New road north of sections 16 and 17-49-6w4
New road north of section 3-48-7w4
New road through section 3-48-6w4.
New road north of section 29-51-11w4.

New road west of the e. $\frac{1}{2}$ of sections 29 and 32-50-4w4.
 New road north of n w $\frac{1}{4}$ of section 1, and s w $\frac{1}{4}$ of section 12-58-9w4
 New road north of section 2-58-9w4
 New road north of sections 2, 3 and 4, and across the centre of sections 7 and 8-58-8w4
 New road north of sections 1, 2 and 3-58-10w4.
 New road in the Saddle Lake Indian Reserve to complete the road north and west of w $\frac{1}{2}$ section 32-57-10w4

RESURVEYS.

Resurvey of a road diversion north of sections 35 and 36-48-12w4
 Resurvey of a road diversion into section 35-58-19w4
 Resurvey of road through section 22-48-7w4.
 Resurvey of a road diversion into section 32-51-12w4
 Resurvey of a road diversion into section 12-47-18w4
 Resurvey of a road diversion into section 22-47-18w4.
 Resurvey of Victoria Trail between stations 220 and 224

ROAD DIVERSIONS.

Diversion into the north of section 36-49-2w4, and into the west of section 31-49-1w4
 Diversion east of section 27-50-3w4.
 Diversion into n e $\frac{1}{4}$ section 22-49-5w4.
 Diversion west of section 23-49-6w4
 Diversion east of section 20, and west of section 28-49-5w4.
 Diversion into sections 10, 11 and 13-53-5w4, and section 18-53-1w4.
 Diversion north and east of section 34-47-6w4.
 Diversion north of section 22-48-9w4
 Diversion north of section 31-48-11w4
 Diversion west of section 12-48-12w4.
 Diversion west of section 25-47-12w4.
 Diversion east of section 16-47-11w4
 Diversion east of section 25-47-12w4
 Diversion east of section 36-49-15w4 (Two diversions)
 Diversion west of section 30-49-14w4
 Diversion west of section 19-49-14w4 (Two diversions)
 Diversion south of section 15-47-13w4
 Diversion into sections 23, 26 and 27-47-13w4.
 Diversion into section 33-58-19w4
 Diversion into section 12-58-9w4
 Diversion into sections 2 and 11-58-9w4
 Diversion into section 11-58-8w4 (Two diversions)
 Diversion into section 7-57-10w4
 Diversion into sections 19 and 30-57-10w4
 Diversion south of section 18-50-10w4
 Diversion south of section 13-50-11w4
 Diversion south of section 17-52-12w4.
 Diversion north of section 12-52-12w4
 Diversion west of section 5-47-17w4
 Diversion south of section 29-47-17w4.
 Diversion south of section 4-47-17w4.
 Diversion west of section 24-47-17w4
 Diversion east of section 20-47-17w4
 Diversion south of section 14-48-17w4
 Diversion west of sections 29 and 32-48-19w4.
 Diversion east of section 33-51-16w4
 Diversion north of section 10-51-16w4.
 Diversion north of section 32-56-14w4 and south of section 5-57-14w4.
 Diversion south of section 25-52-17w4
 Diversion east of sections 23 and 26-52-17w4.
 Diversion south of section 5-53-15w4.
 Diversion east of section 2-52-13w4.
 Diversion west of section 5-48-8w4
 Diversion north of section 15-51-12w4.
 Diversion west of section 18-52-11w4
 Diversion east of section 1-51-12w4.
 Diversion west of section 6-51-11w4.
 Diversion north of section 12-50-10w4.
 Diversion east of sections 12 and 13-52-1w4.
 Diversion east of section 1-52-1w4.

Diversion east of section 24-51-1w4
 Diversion north of section 12, and south of section 13-54-13w4.
 Diversion north of section 34-55-13w4
 Diversion east of section 14-56-13w4.
 Diversion west of section 1, and east of section 2-53-13w4.
 Diversion east of section 14-53-13w4
 Diversion west of sections 24 and 21-53-13w4.
 Diversion east of section 35-53-13w4.
 Diversion east of section 24-55-15w4
 Diversion east of section 4-56-13w4.
 Diversion north of section 6-53-13w4
 Diversion west of section 11-51-4w4
 Diversion north of section 20-51-10w4
 Diversion west of section 13-51-13w4
 Diversion south of section 5-53-15w4
 Diversion south of section 29-55-17w4
 Diversion east of sections 27 and 34-50-15w4
 Diversion east of section 21-59-19w4
 Diversion south of section 2-57-21w4, and north of section 35-56-21w4.
 Diversion north of section 13-59-9w4
 Diversion into section 29-51-5w4
 Diversion east of sections 21 and 28-52-5w4
 Diversion west of section 28-52-6w4
 Diversion east of section 18-52-5w4
 Diversion west of sections 4 and 9-52-8w4
 Diversion west of section 21-52-8w4
 Diversion west of sections 21 and 28-51-8w4
 Diversion west of section 15-53-9w4
 Diversion east of section 22-50-6w4
 Diversion west of section 23-50-6w4
 Diversion east of section 3-51-5w4
 Diversion east of section 3-51-4w4
 Diversion west of section 12-50-9w4
 Diversion west of section 13-50-9w4
 Diversion east of sections 8 and 17-47-17w4
 Diversion north of section 21-47-13w4
 Diversion east of section 29, and west of section 28-51-4w4
 Diversion west of section 1-53-6w4, and north of sections 35 and 36-52-6w4.
 Diversion west of section 27-52-6w4
 Diversion west of section 3-53-6w4
 Diversion east of section 13-52-6w4
 Diversion west of section 29-52-5w4
 Diversion west of section 36-51-6w4.
 Diversion east of sections 14 and 23-52-5w4
 Diversion east of section 9-52-6w4
 Diversion into section 33-58-19w4
 Diversion north of section 31-53-14w4
 Diversion east of section 15-56-11w4
 Diversion into section 32-54-13w4
 Diversion south of section 13-54-14w4
 Diversion north of section 34-54-13w4
 Diversion north of section 20-48-1w4

EXAMINATIONS AND REPORTS

Examination and report of roads north of sections 19 to 24, 31 to 36, and blind line north of sections 25 to 30-47-13w4
 Examination and report of road diversion and bridge site north of section 32-49-18w4
 Examination of roads in the Heath Bell School District, township 48-7w4, and report of same
 Examination and report of road north of sections 10 and 11-47-6w4
 Examination and report of road south of Innisfree
 Examination and report of road north of section 11-50-3w4.
 Examination and report of road east of section 2-51-3w4
 Examination and report of the diversion required in section 25-50-3w4
 Examination and report of road east of section 29-47-17w4
 Examination and report of lost corners north of sections 9 and 10-51-18w4.
 Examination and report of crossing of Gratten cullee, north of section 23-47-11w4
 Examination and report of roads east of sections 14 to 35, township 52-12w4
 Examination and report of blind line south of sections 32, 33 and 34-53-12w4.
 Examination and report of road north of section 32-53-14w4

Examination and report of road north of section 35-55-12w4.
 Examination and report of roads east, west and south from Clarkville.
 Examination and report of blind line north of section 6-54-10w4 (Should come under Private Roads By-law.)
 Examination and report of blind line north of sections 27 and 28-58-17w4.
 Examination and report that road through section 16-59-16w4 is not needed (road east of sections 17 and 20-59-16 has been opened).
 Examination and report of Victoria Trail between stations 82 and 100.
 Examination and report that diversion west of section 34-53-16w4 was reported on in 1908.
 Examination and report of blind line north of sections 29 and 32-51-5w4.
 Examination and report of road north of section 21 and 22-53-5w4
 Examination and report of road east of section 29-50-6w4.
 Examination and report of survey north of section 22-50-9w4.
 Examination and report of trail between Brosseau and Little Fish Lake
 Examination and report of roads east of sections 17 and 20-50-5w4.
 Examination and report of location of Ferry Tower south of the river at Brosseau.
 Examination and report of road east of section 22-50-15w4.
 Examination and report of School District roads in 48-6-4w4.
 Examination and report of Victoria Trail through section 30-58-18w4.
 Examination and report of township line north of 55-13w4, and road east of section 4-56-13w4
 Examination and report of bridge location south of section 13-54-14w4.
 Examination and report of road through the east half 17-52-14w4

DRAINS.

Ditch to drain slough east of section 2-54-14w4.
 Ditch to drain slough south of section 4-54-13w4.
 Ditch to drain slough south of section 3-54-14w4
 Ditch to drain slough south of section 3-51-14w4
 Ditch to drain slough north of n w $\frac{1}{4}$ section 33-51-13w4.
 Ditch to drain slough south of s e $\frac{1}{4}$ section 4-52-13w4.
 Ditch to drain slough north of section 23-52-15w4.
 Ditch to drain slough east of section 9-51-16w4
 Ditch to drain slough east of section 19-51-14w4
 Ditch to drain the Village of Chipman
 Levels were taken for the Local Improvement Council of the hill east of section 1-54-14w4

During the past season pits at the following road diversions were dug These had been left over from the previous years owing to the ground being frozen at the time of the surveys:

Diversion into section 35-58-19w4
 Diversion into section 21-59-19w4.
 Surveys on plan No 516
 Diversion into section 35-48-7w4

Reports and sketches were forwarded to the department at the time the examinations and surveys were made

A number of the plans and field notes have already been sent into the department; the remainder are now in course of preparation.

I have the honour to be, Sir,

Your obedient servant,

LENNOX T BRAY,
District Surveyor and Engineer.

LETHBRIDGE, December 31, 1910

SIR,—I have the honour to submit my annual report showing surveys made during the past season and other work performed in this district.

Most of the winter season was spent in the preparation of plans and field notes of surveys made the previous season

On account of sickness and bad weather in connection with the difficulty I had in securing an assistant, I was later than usual getting my party into the field. I fitted up my outfit and left Raymond on the 27th of April and proceeded to Macleod where I had left off field work in December, 1908. I worked westerly from Macleod clearing up all surveys necessary through the Porcupine Hills along the Old Man River north of Pincher Creek up the North Fork of Old Man River and along the east of Livingstone Range. Also through the Crow's Nest Pass to the boundary line between British Columbia and Alberta. I then returned to the country south of Lundbreck where I worked until 19th December. I left the south fork of Old Man River December 20th for the Cochrane Ranch with the intention of surveying a road from there to Cardston across the Blood Indian Reserve. In the meantime I received instructions not to make this survey. I therefore ordered my party to Raymond where I disbanded for the winter on December 31st.

I had difficulty during the season in getting a competent assistant, and on that account some time was lost. Considerable storm interfered with the work also, and for these reasons I am not as far along with the surveys as I anticipated.

I had the misfortune of having one of my horses killed by a train at Sentinel Siding for which the C. P. R. refused to compensate me. This, however, did not interfere as I had an extra animal which I made use of.

While travelling through my district the last four seasons, I have been impressed with the fact that a great deal of local improvement money is being wasted every season by misapplication of labour, and I would suggest that something be done to curtail this waste. Inexperienced men are often employed to take charge of grading, etc., and I have noticed that where the road grader can be used on side hills, much of the work is well ahead while mudholes are overlooked or neglected.

Below is a list of surveys and examinations:

NEW ROADS.

- Survey of new road to steel bridge at Macleod, section 13-9-26w4
- Survey of new road across steel bridge over south fork river, section 24-6-2w5.
- Survey of new road through east half of section 23-6-30w4, extension of Main street, Pincher Creek
- Survey of new road north of sections 7/8/9/10/11, township 8-29w4, and through sections 4/9-8-29w4
- Survey of new road through 10/11/14/15/22/23/27/34, township 8-1w5, and sections 3/10/15, township 9-1w5
- Survey of new road through sections 15/21/22/28/33, township 9-1w5
- Survey of new road from British Columbia boundary to Coleman
- Survey of extension of old road through section 1-8-3w5.
- Survey of new road through sections 2/3/11-7-2w5
- Survey of new road up south fork of Old Man River from section 33-6-2w5 to section 25-6-3w5.

DIVERSIONS.

- Diversion around lake into section 18-9-20w4.
- Diversion along C.P.R. in n e ¼ of section 36-11-27w4.
- Diversion to ford on Willow Creek into sections 22/27/28, township 9-26w4.
- Diversion into section 16-9-28w4 to open road allowance to Olsen Creek Post Office.
- Diversion into s e. ¼ of section 11-8-1w5 across deep coulee.
- Diversion sections 11/12/14/23/24, township 8-30w4 around hills.
- Diversion sections 14/15, township 8-30w4 to give better grades.
- Diversion north half of section 11-8-30w4 across Tennessee Coulee
- Diversion north-west quarter of section 35-7-30w4 to give better grades.
- Diversion section 25-8-1w5 around hill
- Diversion sections 2/11, township 8-29w4 to give better grades.

Diversion sections 25/36, township 7-29w4 to give better grades.
 Diversion east of section 13-7-29w4 to give better grades
 Diversion into section 19-8-29w4.
 Diversion between sections 35/36, township 7-30w4 around hill.
 Diversion around bend of Cow Creek into section 34-8-2w5
 Diversion around hill into south-east quarter of section 3-8-2w5.
 Diversion to avoid snow into south-east quarter of section 22-8-2w5
 Diversion from range line between ranges 2/3 in township 7 for better grades

SURVEYS CHANGED.

Change in Macleod, Beaver Creek road in section 2-9-28w4.
 Change Walrond Ranch road in sections 24/25/36, township 8-1w5.
 Change in surveyed road through section 15-81w5
 Change in surveyed road across coulee in section 16-8-1w5
 Change in surveyed road across Todd Creek in section 31-7-1w5
 Change across Rock Creek in sections 20/21, township 7-2w5, and sections 14/15, township 7-2w5
 Change between Coleman and Blairmore
 Change between Bellevue and Frank Slide.
 Change through section 25-6-2w5

SURVEYS CHECKED.

Checked survey in sections 25/31, township 1-25/26w4
 Checked survey in sections 5-3-25w4, and 12-2-27w4
 Checked Macleod-Cardston road in Blood Indian Reserve at Stand Off
 Checked survey of Lyndon Sawmill road sections 27/34, township 12-29w4

EXAMINATIONS

Examination and report on Government wells in sections 25/26, township 11-22w4
 Examination and report on proposed roads in townships 4/5, ranges 20/21w4.
 Examination and report on road allowance east of section 5-10-16w4
 Examination and report on proposed road from the east into Warner
 Examination and report re change in Pincher Creek Fishburn Trail
 Examination and report re proposed change in section 10-4-24w4
 Examination and report re private road to coal mine in section 36-8-22w4.
 Examination and report re outlet to lake in section 19-8-25w4
 Examination and report re condition of road allowance east of section 11-9-20w4
 Examination and report re the advisability of irrigation ditches crossing roads in township 11, ranges 29/30w4, and township 17, ranges 2/3w5
 Examination and report re change in road through section 15-4-29w4
 Examination and report re proposed road north of section 13-4-29w4
 Examination and report re proposed change in sections 16/20-4-28w4
 Examination and report re closing road in section 7-4-28w4
 Examination and report re proposed change in section 15-4-30w4
 Examination and report re proposed change of road in section 10-4-30w4
 Examination and report re proposed road in sections 30/31/32/33/34, township 9-17w4
 Examination and report re proposed change in sections 28-2-24w4
 Examination and report re proposed diversion east of section 34-2-24w4
 Examination and report re closing road allowance east and north of section 19-3-25w4.
 Examination and report re closing of Aetna timber road
 Examination and report re lease of road allowance east of section 9-3-27w4
 Examination and report re change in surveyed road in sections 21/22, township 6-30w4
 Examination and report of proposed change in surveyed road in section 2-6-1w5
 Examination and report on proposed change in surveyed road in sections 8/17-6-1w5
 Examination and report re proposed change of road in sections 25/35, township 6-2w5.
 Examination and report re proposed change of road between Cowley and Bellevue
 Examination and report re proposed change of road between British Columbia and Blairmore
 Examination and report re width of correction line north of township 10-21w4.
 Examination and report re proposed road across Chin Coulee in sections 30/31, township 7-16w4

Examination and report re proposed change in old road through township 9-22w4.

Examination and report re proposed change in surveyed road through township 4-23/24w4

Examination and report re lease or disposal of road allowances within the "44" Ranche in township 12-29w4.

Examination and report re disposal of road allowances adjoining sections 27/34-12-29w4.

Examination and report re disposal of road allowance north of section 23-12-28w4 to the Town of Claresholm.

Examination and report re proposed road up Heath Creek in townships 9/10, range 1w5.

Examination and report re proposed road across Todd Creek in sections 13/14-9-2w5

Examination and report re proposed road through sections 25/30, township 9-2/3w5

Examination and report re lease of road allowance w of n w 15 and n of n.w. 22-9-2w5.

Examination and report re road diversion asked for in section 7-12-22w4

Examination and report re closing of old road through s.e. $\frac{1}{4}$ of section 29-7-3w5.

Examination and report re route for telephone line to connect the Alberta and British Columbia Systems.

Examination and report re proposed change in surveyed road through section 36-2-26w4

Examination and report re diversion surveyed into sections 2-1-26w4.

Examination and report re lease of road allowance north of section 12-2-25w4.

Examination and report re road asked for from Mountain Mill Road up Mill Creek into township 5-2w5

Examination and report re closing old road through the s.w. $\frac{1}{4}$ of section 25-3-25w4

Examination of road allowance across coulee between sections 4/5, township 6-20w4

Examination and report re surveyed road through section 5-8-25w4 and fencing of same

Examination of proposed private road into section 30-7-2w5

QUARTER SECTIONS FORFEITED for non-payment of taxes Examination of same

N W 26-7-22w4, s.w. 25-7-22w4, w. $\frac{1}{2}$ of w. $\frac{1}{2}$ 10-8-22w4, Section 25-1-23w4, n.w. 24-1-23w4, s.w. 24-1-23w4, w. $\frac{1}{2}$ 14-10-25w4, n.e. 32-9-25w4, e. $\frac{1}{2}$ of s.e. 32-9-25w4, s. $\frac{1}{2}$ of n.w. 16-9-25w4, n.w. 6-10-25w4, n. $\frac{1}{2}$ of n.e. 6-10-25w4, s.e. 4-10-25w4, s.w. 26-9-26w4, s.e. 20-8-26w4, s.w. 6-8-26w4, s.w. 5-9-26w4, n.w. 24-1-26w4, s.e. 2-3-27w4, s.e. 12-7-30w4

A copy of most of the field notes of above surveys has been sent, others are in course of preparation Plans are also being prepared as fast as possible.

R J GORDON,
District Surveyor and Engineer,

EDMONTON, February 10, 1910.

L C CHARLESWORTH, Esq, D.L.S.,
Director of Surveys,
Edmonton, Alta

SIR,—I have to report that acting on your instructions in connection with survey work in the Olds district, I shipped my party and outfit to Carstairs on September 20th, 1909 Some delay was caused at the start on account of the difficulty of hiring teams for transportation, but I was at last able to make satisfactory arrangements for the hire of one team and wagon with teamster and decided to do the best with this one team I took the field on September 25th and proceeded southerly towards Crossfield, and from there worked northerly and easterly with the intention of cleaning up all surveys for which I had instructions as I went along I was, however, forced to leave out a good deal of work which would have necessitated a great waste of time in moving camp with only one team, owing to

the fact that for a long haul it would have been impossible to move the whole outfit at once. Considerable snow and dense, foggy weather occurred between October 15th and 22nd and interfered to some extent with the progress of the work. On the 15th of November, the weather having turned very cold, and there being a considerable depth of frost in the ground, rendering pit digging an expensive operation, I decided to ship my outfit to Edmonton and paid off my party on the 16th.

Attached you will find a list of the surveys and examinations made by me in the Olds district

Your obedient servant,

P. N. JOHNSON,
District Land Surveyor

NEW ROADS

Survey of blind line road between sections 30 and 31, 29 and 32, township 31-27w4.

ROAD DIVERSIONS

Diversions in south $\frac{1}{4}$ of section 18 and the north-west $\frac{1}{4}$ of section 9, township 31-26w4.

Diversion in the north-east $\frac{1}{4}$ of section 24, township 28-29w4.

Diversion in sections 13, township 29-28w4, and 18, township 29-27w4

Diversion in the south-east $\frac{1}{4}$ of section 23, township 30-27w4

Diversion in the south-east $\frac{1}{4}$ of section 29, township 30-27w4

Diversion in the north-east $\frac{1}{4}$ of section 16, township 30-27w4

Diversions in the south-west $\frac{1}{4}$ of section 26, and the north-west $\frac{1}{4}$ of section 23, and the north-east $\frac{1}{4}$ of section 22, township 29-29w4

Diversions in the north-east $\frac{1}{4}$ of section 36, township 29-29w4 and in the south-west $\frac{1}{4}$ of section 31, township 30-29w4

Diversion in the north-east $\frac{1}{4}$ of section 35, township 29-29w4

Diversions in sections 2, 3 and 11, township 29-28w4

Diversion in the south-east $\frac{1}{4}$ of section 11, township 32-27w4

EXAMINATIONS

Examination re diversion asked for between sections 24 and 25, township 33-29w4. Not required

Examination re reported obstruction by low lands on road due east of Crossfield. No survey required

Examination re diversion asked for between sections 13 and 14, township 30-27w4.

Examination re bridge site and diversion in the north-west $\frac{1}{4}$ of section 24, township 29-29w4. Not necessary

Examination re diversion asked for north of the north-east $\frac{1}{4}$ of section 36 and the north $\frac{1}{4}$ of section 35, township 29-28w4. Not required

LACOMBE, December 31, 1909

L. C. CHARLESWORTH, ESQ., D.L.S.,

Director of Surveys,

Edmonton, Alta

SIR,—I beg to submit the following report in connection with the work performed by myself and party in the Lacombe Public Works District during the year 1909, and I attach hereto a schedule showing the work done, and classified as "New Roads," "Road Diversions," and "Examinations"

The early part of the season was spent in preparing plans of the previous season's work, and making a number of examinations where conveniently close

On the 13th day of April, I organized my party and took the field. I commenced operations in the eastern part of my district.

and completed a number of smaller surveys, also surveyed the road between Shooting and Island Lakes, road to steel bridge over Battle River south of Sedgewick, road south-west from Hardisty and road from Hardisty to Rossyth. From this point I turned westward, making all surveys within a reasonable distance, until I reached Chesterwold. Here I completed the road north-west, and road to bridge over Battle River. I then moved southward, and made a good many small surveys in the vicinity of Rimbey, Bentley, Eckville, Leslieville and Evarts. After completing the road from Gilby to Wittenburg, I moved my outfit west of Olds, to survey the road to the steel bridges over the Red Deer River and the James River.

By this time I had covered the greater part of my district, omitting the territory around Battle and Pigeon Lakes, and as the season was far advanced, and the weather getting severe, I pulled my outfit to headquarters, and disbanded about the 11th of December.

The season in general was exceedingly good, and a large amount of work was accomplished, very little time being lost on account of rains.

The remainder of the year was spent in the office, preparing plans and field notes.

Your obedient servant,

A S STEWART,

District Surveyor and Engineer.

NEW ROADS.

- Change in surveyed road in s w. 4-39-27w4, along C. & E. trail.
- Change in surveyed road in w. $\frac{1}{2}$ section 31, and s $\frac{1}{2}$ section 17-37-2w5.
- New road along blind line north of section 14, township 41-24w4
- Change in surveyed road in sections 26/29/32, township 39-5w5.
- New road along blind line between sections 27/34, 28/33, township 46-27w4.
- New road in w. $\frac{1}{2}$ section 26-39-27w4.
- New road n. of sections 3/4/5, township 43-23w4.
- New road from Hardisty to Rossyth, through sections 28/29/30/31, township 42-9w4
- New road through sections 13/24-41-23w4.
- New road along the blind line north of section 29-45-20w4.
- New road along the blind line north of section 1-38-26w4.
- New road to steel bridge over Battle River, through sections 1/2/3/16/20-39-12, s w. 27-38-12, section 6-39-11, and section 31-38-11w4.
- New road between sections 18/19 and 17/20, township 39-15w4
- New road around the south end of Bittern Lake in n. $\frac{1}{2}$ section 30-46-21w4.
- Change in road in section 8-46-20w4
- Change in road in n e. $\frac{1}{2}$ section 30-40-26w4
- New road through sections 33/34-40-23w4
- New road in section 1-45-26w4.
- New road along blind line north of section 11, township 41-1w5.
- New road in sections 1/11/12-45-28w4.
- New road through sections 22/23-38-12w4.
- New road through sections 34/35/36-42-10w4.
- Change in road in section 3-43-24w4
- New road through sections 4/9-39-19w4
- New road in sections 6/7-42-24 and sections 1/12, township 42-25w4
- New road in sections 18/19/29/31/32-40w5 and sections 1/12/13-41-4w5.
- New road through sections 5/8/17/20-37-17w4.
- New road along $\frac{1}{2}$ line through sections 32/33, township 38-15w4.
- New road east of sections 16/21/28/33-42-20w4.
- New road along blind line between sections 13/24-47-21w4, and between sections 18/19-47-20w4
- New road along blind line south of section 12-47-20w4.
- New road along the blind line north of section 13-39-5w5.

ROAD DIVERSIONS

- Diversion in n w. 30 and s.w. 31-37-2w5.
- Diversion in e. $\frac{1}{2}$ section 19 and n.w. section 32-44-25w4.
- Diversion n. of sections 10/11-43-25w4.

Diversion in n e. 12-44-26w4
 Diversion in e $\frac{1}{2}$ section 25 and n e. 24-44-22w4
 Diversion in s.w. 14-47-28w4 (corrected)
 Diversion in w. $\frac{1}{2}$ section 8-42-17w4
 Diversion in n.e. 24-47-21w4.
 Diversion in s. $\frac{1}{2}$ section 17-40-15w4.
 Diversion in n $\frac{1}{2}$ section 9 and s e 16-41-17w4
 Diversion in n.w 7-41-22w4.
 Diversion in sections 16/21-37-20w4
 Diversion in s w 3-40-28w4
 Diversion in s w 13 and s e 16-44-14w4.
 Diversion in sections 17/20-43-13w4
 Diversion in n w. 36-33-5 and s w 2-34-5w5
 Diversion in n e 22 and s e 27-39-16w4
 Diversion in s e 25-40-27w4
 Diversion in s w 27 and e $\frac{1}{2}$ section 28-39-3w5
 Diversion in s w 17-45-16w4.
 Diversion in s w 3-39-11w4
 Diversion in s w 30-38-16w4
 Diversion in n $\frac{1}{2}$ section 33-42-23w4
 Diversion in s w 35-46-18w4
 Diversion in w $\frac{1}{2}$ 23, s e. 15 and n w 11-45-26w4.
 Diversion in w $\frac{1}{2}$ section 29-45-21w4
 Diversion in s of sections 2/3/4-33-5w5
 Diversion in sections 22/34/35-43-12w4
 Diversion in n $\frac{1}{2}$ section 11-45-28w4
 Diversion in e of sections 24/25/36-37-24w4
 Diversion in s.w 27-37-24w4
 Diversion in n $\frac{1}{2}$ 19 and s w 30-37-24w4
 Diversion in n of sections 31/32 and w of sections 28/33, township 37-20w4.
 Diversion in w $\frac{1}{2}$ 17 and e $\frac{1}{2}$ 19-37-20w4
 Diversion in s e 29-37-20w4
 Diversion in n e 7 and s w. 17-41-1w5
 Diversion in n e 8 and s e 17-42-2w5
 Diversion in w $\frac{1}{2}$ section 3-41-21w5.
 Diversion in n $\frac{1}{2}$ section 19-38-18w4
 Diversion in s w 1 and n w 36, townships 40/41-R4w5
 Diversion in e $\frac{1}{2}$ 25 and s w 30-44-26/27w4
 Diversion in n w. 2 and w $\frac{1}{2}$ 11-43-24w4
 Diversion in n e. 4 and s e 9-42-11w4
 Diversion in w $\frac{1}{2}$ section 6/7-38-22w4
 Diversion in n e 26-46-18w4
 Diversion in sections 8/9/17-38-15w4
 Diversion in s w 25-39-2w5
 Diversion in s e 2 and n e. 34-42/43-20w4
 Diversion in n w 36 and s w 1-43/41-20w4
 Diversion in between sections 23/24, 25/26, 35/36, township 44-11w4
 Diversion in sections 5/29-44-10 and sections 32/33, township 43-10w4
 Diversion in n w 21 and s w 28-37-22w4
 Diversion in n e 14 and s e 23-38-23w4
 Diversion in n w 31-44-14w4
 Diversion in s $\frac{1}{2}$ section 18-39-17w4.
 Diversion in s e $\frac{1}{2}$ section 13-40-18w4
 Diversion in n.e $\frac{1}{2}$ section 8-40-17w4
 Diversion in n e 22 and s w 27-39-18w4.
 Diversion in w $\frac{1}{2}$ section 11-39-18w4
 Diversion in n e 27 and s e 34-39-18w4
 Diversion in s w 25-38-23w4
 Diversion in n w 17 and n e 18-39-4w5
 Diversion in n e 9 and s.e 16-39-3w5
 Diversion in e $\frac{1}{2}$ section 24-39-5w5
 Diversion in n $\frac{1}{2}$ section 7-39-4w5
 Diversion in s w $\frac{1}{2}$ section 2-44-18w4
 Diversion in s $\frac{1}{2}$ section 3-45-17w4
 Diversion in sections 3/34/35-44/45-17w4
 Diversion in e $\frac{1}{2}$ section 21-44-17w4
 Diversion in s w $\frac{1}{2}$ section 14-44-17w4
 Diversion in n e $\frac{1}{2}$ section 34-40-17w4
 Diversion in n w $\frac{1}{2}$ section 33-40-18w4
 Diversion in s w $\frac{1}{2}$ section 29-40-26w4
 Diversion to steel bridge over James River in n w. 11 and w $\frac{1}{2}$ section 14-34-5w5
 Diversion east of sections 4/9/16/21, 28/33, township 33-5w5.

EXAMINATIONS.

Examination in section 17-39-26w4.
 Examination in s w 10-39-22w4 for subway
 Examination in sections 3/36-37/38-26w4.
 Examination in s e 31-41-1w5.
 Examination in section 5-43-25w4
 Examination in sections 14/15/16/20/21-40-16w4.
 Examination in township 37-2w5
 Examination in sections 10/11/14-39-4w5
 Examination in s of sections 2/3-43-24w4
 Examination in w. 1/4 of section 19-47-19w4
 Examination in sections 36/31/32-38-12/13w4
 Examination in s of section 6-43-19w4
 Examination in e of sections 20/31-41-24w4
 Examination in e of section 25-40-18w4
 Examination in sections 2/11-39-27w4
 Examination n of sections 4/5/6-42-20w4
 Examination between sections 14/15-44-20w4
 Examination w of sections 18/19-45-21w4
 Examination between sections 3/4 and 9/10-42-17w4
 Examination between sections 12/13-40-26w4.
 Examination of blind line in township 43-10/11w4.
 Examination of blind line, township 38-16/17/18w4.
 Examination through section 20-37-22w4
 Examination between sections 22/23, 26/27-39-15w4.
 Examination south of section 2-40-15w4
 Examination of bridge in section 30-44-27w4.
 Examination e of section 14-43-14w4
 Examination in sections 15/22-39-27w4
 Examination in section 6-39-20w4
 Examination in River Lots 15/16-16-21w4.
 Examination s of section 14-33-4v5
 Examination w of section 4-42-12w4
 Examination of blind line in township 45-20w4
 Examination between sections 33/34-35-28w4
 Examination in section 36-43-18w4, to check survey.
 Examination in n w. section 2-38-26w4
 Examination in township 45-22w4.
 Examination of blind line n. of sections 14/15/16, township 44-20w4.
 Examination in s w 21-37-2w5
 Examination e. of section 21-39-27w4
 Examination between sections 35/36-41-18w4.
 Examination in n w 21-42-17w4
 Examination w of sections 30/31-42-18w4
 Examination between sections 3/4-42-18w4
 Examination s of section 3-41-18w4
 Examination between sections 15/16-37-20w4.
 Examination between sections 16/17-37-22w4.
 Examination e of section 28-41-2w5
 Examination s w. 1/4 of section 2-42-2w5
 Examination e of section 7-36-23w4 to locate school grounds.
 Examination w. of section 3-38-18w4
 Examination in sections 10/11-40-6w5
 Examination e of sections 28/83-41-17w4
 Examination e of section 26-44-27w4
 Examination in section 27-41-27w4.
 Examination n. of sections 19/24-43-13/14w4
 Examination in n e 20 and n w 21-43-10w4.
 Examination n of section 10-44-18w4
 Examination between sections 25/26, 35/36-44-17w4
 Examination s of section 13-44-17w4
 Examination in section 29-44-17w4
 Examination between sections 13/14-43-20w4.
 Examination in sections 10/11/15/16/20/21/29/32, township 37-21w4.

MEDICINE HAT, December 31, 1909

JOHN STOCKS, Esq.,
Deputy Minister of Public Works,
 Edmonton, Alta.

SIR,—I have the honour to submit the following report in regard to the work performed by me during the past season in the Public Works District of Medicine Hat. The greater part of the work consisted of surveys of road diversions, new roads, examinations and reports.

Below is given a list of surveys and examinations made in the order of instructions received:

ROAD DIVERSION SURVEYS

Diversion from road allowance in e. $\frac{1}{2}$ of 27 and n w. 26, township 13-6w4
 Diversion from road allowance w $\frac{1}{2}$ of 2-11-5w4.
 S E. of section 4 and s.w. of section 3, township 10-4w4
 N W 32, township 9-4w4.
 Section 15, township 9-4w4
 S E. of section 25-9-4w4.
 S.W 31, township 9-3w4.
 Sections 26/27, township 9-4w4.
 S.E. of section 18-8-3w4
 Sections 13/14, 24/25, township 9-2w4
 Sections 3/11, 14/15, township 10-2w4.
 Section 7, township 10-2w4.
 S E. section 22, township 10-3w4.
 N W. of section 20, township 11-6w4.
 S W of section 6, township 10-10w4
 N E. of section 34, and n w 35, township 10-2w4.
 S. $\frac{1}{2}$ of section 1, township 10-1w4

EXAMINATION AND REPORTS.

Examination and report of proposed spur line to Industrial Place, Medicine Hat.
 Telephone line, Medicine Hat to Taber
 Diversion proposed by C.P.R in n e. 3-12-5w4
 Diversion in section 28/29 and e. of 33, township 11-6w4
 Road diversion between sections 34/35, township 10-5w4
 Road allowances in townships 7/8, range 4w4, townships 8/9-w4
 Sections 19/32, 33/34 road allowances, township 8-4w4
 Examination of road allowance n of 31/32/33 and e. of 28/33, township 8-3w4
 Subway s e section 16, township 9-2w4
 Road allowances e 10/15/22/27/34, township 9-2w4.
 Proposed bridge site between sections 11/14, township 13-1w5
 Proposed road to give outlet to Canadian Brick Co., n w 28-12-5w4
 Road allowances north of sections 23/22/21/20/19, township 13-7w4
 Proposed diversion in sections 25/30, township 7-3w5
 Road allowances in townships 7/8, range 4w4, and townships 8/9, range 5w4.
 Change of railway crossing Grassy Lake
 Roads in sections 28/22/15, township 12-5w4.
 Road allowances asked for by L. C. Brown to be closed, township 8-3w4.
 Proposed divers.on by C.P.R. Chin Station, section 25-9-19w4.

SURVEYS OF NEW ROADS.

New road through n w. 31-12-5w4 and s w 6-13-5w4.
 New road through w $\frac{1}{2}$ of section 2-11-5w4.
 New road through n. $\frac{1}{2}$ of section 1-11-3w4.
 New road along blind line north of section 1, township 13-6w4.
 New road through section 28-12-5w4.
 Proposed drainage of lake section 21/22, 27/28-12-6w4.
 Survey and levels, court house, Medicine Hat.

Cross sections were taken for bridge sites and for improvement of hills on road allowances. Detailed reports were forwarded to the department at the time the surveys or examinations were made.

A number of plans and field notes have been completed and forwarded to the department, the remainder being now in course of preparation.

On instructions from the department, survey party was disbanded on July 23rd, 1909.

J. A. CARBERT,
District Surveyor and Engineer.

CALGARY, January 10, 1910

JOHN STOCKS, Esq.,
Deputy Minister of Public Works,
Edmonton, Alberta.

SIR,—I have the honour to submit the following report of surveys made and other work completed in this district during the past season

The first part of the season was spent in preparing returns of surveys made during the season of 1908, examining plans of surveys, making examinations throughout the district where work was asked for during the coming season and inspections of road work. As my instructions for the season's work did not reach me until the end of the first week in May I was unable to organize my party and get into the field until May 10th. We then examined proposed road diversions and new roads in the irrigation belt east of Calgary, making surveys where it was necessary to do so. When this part of the district had been pretty thoroughly covered we proceeded north and west of Calgary, thence north and east of Calgary towards Carbon, thence south and east of Calgary to limit of Blackfoot Reserve, thence south-west of Calgary into the foothills. We pursued a southerly course down through the foothill country west of the Calgary-Macleod branch of the C P R, completing all necessary surveys as we proceeded until we reached the southern boundary of the district. We then crossed the railway and finished up all surveys on the east side of the track on our way back to Calgary, which point we reached about the end of October. We then travelled west of Calgary on the south side of the Bow River, crossing it at Cochrane and working as far north as 28-4-5, from which point we returned to Calgary where the party was disbanded on December 4th. The season so far as weather conditions were concerned was very good for our work, the only time lost because of bad weather was parts of a few days in the latter part of May when days were cold and wet with some light flurries of snow, a couple of days in June because of heavy rains, and a couple of days in November which were very cold and stormy. I was thus able to complete all work for which I received instructions previous to July 1st. As later a number of instructions were received for work in parts of the district after I had passed through, some of these had to be left over until next season.

The following is a list of the work done

Your obedient servant,

JOHN M. EMPEY,
District Surveyor and Engineer

NEW ROADS

New road through sections 1/11 of 24-4w5.
New road through sections 30 of 26-2w5.
New road through sections 2/3 of 25-1w5.
New road through sections 16/21 of 25-1w5.
New road through sections 13, 23 and 26 of 19-3w5
New road through sections 3, 4, 9 and 10 of 26-4w5

- New road through section 2 of 28-4w5.
 New road across sections 7, 13, 14, 21, 22, 23 and 24 of 27-26w4, and sections 17, 18, 19, 20, 21, 22, 23, 26 and 35 of 27-25w4 and sections 3, 4, and 15 of 26-28w4, and section 26 of 27-25w4
 New road through section 12 of 27-1w5
 New road through sections 19, 30, 29, 32, 33 and 34 of 14-29w4 and sections 2, 3, 10 and 11 of 15-29w4.
 New roads through sections 19/7 of 26-2w5 and sections 13, 24, 12, 25 and 36 of 26-3w5
 New road through sections 25, 26, 35 and 36 of 16-1w5 and sections 25 and 36 of 16-30w4
 New road through section 31 of 26-2w5 and section 6 of 27-2w5
 New road through sections 13/24 of 21-25w4
 New road through section 8 of 15-29w4
 New road through sections 28, 27 and 35 of 19-3w5
 New road through sections 13, 14, 15, 22, 16, 17 and 20 of 28-4w5
 New road through sections 2, 11, 12 and 13 of 21-1w5.
 New road through sections 15/22 of 22-1w5
 New road through sections 33, 34, 15, 16 and 22 of 22-25w4 and section 33 of 21-25w4.
 New road through sections 9, 10 and 15 of 32-3w5
 New road through sections 5 of 25-22w4 and sections 32, 17, 5, 31 and 19 of 24-22w4
 New road through sections 6, 20, 29 and 5 of 25-22w4.
 New road through sections 2, 3 and 11 of 20-3w5
 New road across sections 3, 4, 10, 11, 14, 24, 23 and 25 of 15-1w5 and section 33 of 14-1w5
 New road through sections 24/26 of 18-1w5
 New road west from Langdon on north side of C.P.R. through sections 16, 15, 17 and 18 of 23-27w4 and sections 13 of 23-28w4
 New road through sections 18 and 19 of 29-23w4
 New road across section 9 of 27-17w4
 New road through sections 13, 24 and 25 of 24-27w4.
 New road across sections 15/22 of 25-24w4.
 New road across section 12 of 25-26w4 and section 7 of 25-25w4.
 New road through sections 15/22-27-1w5
 New road through sections 5, 8, 9, 10 and 3 of 21-3w5.
 New road through sections 23/24 of 23-27w4
 New road through sections 17, 18, 19 and 20 of 16-28w4
 New road through sections 25/36-14-30w4 and sections 5, 6, 7 and 8 of 15-29w4.
 New road through sections 28/29 of 15-27w4
 New road through sections 1, 2 and 12 of 15-29w4 and sections 33 and 34 of 14-29w4
 Traverse survey for proposed road through sections 1 and 2 of 26-4w5
 New road through sections 4, 8, 9, 16, 17 and 21 of 25-25w4
 New road through sections 19 of 27-25w4 and sections 13 and 36 of 27-26w4.

ROAD DIVERSIONS

- Road diversion into section 6 of 24-3w5.
 Two diversions into section 1 of 21-4w5
 Road diversion into section 13 of 19-3w5
 Road diversion into section 34 of 19-3w5
 Road diversion into section 10 of 15-29w4.
 Road diversion into section 13 of 26-2w5
 Road diversion into section 25 of 17-2w5
 Road diversion into sections 23/26-17-29w4
 Road diversion into section 26 of 26-4w5
 Road diversion into section 13 of 26-1w5.
 Road diversion into section 26 of 26-1w5
 Road diversion into section 21 of 24-27w4
 Road diversion into section 34 of 24-27w4
 Re-survey of road diversion into section 9 of 27-2w5 to include the improvements made after survey was completed in July.
 Road diversion into section 35 of 24-1w5
 Road diversion into section 27 of 27-2w5
 Road diversion into sections 8, 9, 16 and 17 of 27-2w5
 Diversion into section 5 of 22-26w4.
 Road diversion into section 10 of 32-3w5
 Road diversion into section 7 of 22-26w4.
 Road diversion into sections 19/29 of 22-26w4
 Road diversion into sections 15 of 23-25w4.

Road diversion into section 23 of 15-26w4.
 Road diversion into section 31 of 28-3w5.
 Road diversion into sections 19/30 of 20-25w4.
 Road diversion into section 11 of 21-2-8w4.
 Road diversion into section 32 of 24-24w4.
 Road diversion into section 3 of 27-17w4.
 Road diversion into section 32 of 19-1w5.
 Road diversion into section 28 of 25-26w4.
 Road diversion into section 20 of 24-26w4.
 Road diversion into sections 28/33 of 34-24w4.
 Road diversion into section 1 of 24-27w4 and section 6 of 24-26w4.
 Road diversion into section 1 of 25-28w4 and section 31 of 24-27w4.
 Road diversion into sections 1/12 of 25-27w4.
 Road diversion into sections 35 of 18-2w5 and 32 and 33 of 18-1w5.
 Road diversion into section 10 of 15-28w4.
 Road diversion into section 14 of 28-1w5.
 Road diversion into section 14 of 24-27w4.
 Road diversion into section 29 of 22-26w4.
 Road diversion into section 23 of 25-1w5.
 Road diversion into section 28 of 25-1w5.
 Road diversion into section 24 of 25-1w5.
 Road diversion into section 28 of 15-28w4.
 Road diversion into s e $\frac{1}{4}$ of section 21 of 27-1w5.
 Road diversion into n e $\frac{1}{4}$ of section 21 of 27-1w5.
 Road diversion into section 20 of 27-3w5 and section 35 of 26-3w5.
 Road diversion into section 13 of 26-2w5.
 Road diversion into section 3 of 26-2w5.
 Road diversion into section 31 of 29-23w4.
 Road diversion into section 7 of 29-23w4.
 Road diversion into section 26 of 27-25w4.
 Road diversion into section 2 of 29/2-1w4 and section 35 of 28-24w4.
 Road diversion into sections 31/35 of 25-28w4.
 Road diversion into section 3 of 26-28w4.
 Road diversion into sections 26/35 of 20-26w4.
 Road diversion into section 6 of 21-2w5.
 Road diversion into section 36 of 16-30w4.
 Road diversion into section 7 of 21-2w5.
 Road diversion into section 26 of 19-3w5.
 Road diversion into section 19 of 14-29w4 and section 24 of 14-30w4.
 Road diversion into section 25 of 28-4w5.
 Road diversion into section 22 of 28-4w5.

OTHER SURVEYS.

Survey to re-establish the corners of Lot 6, Block 6, East Calgary, for telephone exchange building.

Location of corner lots for telephone exchange building on 12th avenue, Lot 28, Block 93, Plan A L.

Survey for ferryman's plot in the n e $\frac{1}{4}$ of section 33 of 21-25w4.

Survey to mark the limits of the boulevard north of the Bow River and west of the Morley Trail in section 16 of 24-1w5, in connection with the fire hall site.

Survey of plot for ferryman in section 3 of 27-17w4.

MISCELLANEOUS WORK

Measurements across and levels along site of new Langevin bridge.

Examination and valuation of following quarter sections which were forfeited for non-payment of taxes. All of sections 8, 16, 15 and 22 of 19-29w4, s w $\frac{1}{4}$ of section 31 of 19-22w4 and s e $\frac{1}{4}$ of section 26 of 19-3w5.

Reclaimed tie of station 6 of survey in section 35 of 21-1w5.

Completed digging pits on small diversion into sections 34 of 19-3-5, surveyed in 1908.

Levels taken along centre line of survey for new road across sections 23 and 26 of 17-29w4, also levels taken across Squaw Coulee near centre line of section 23 of 17-29w4, the location proposed by L I C.

Levels taken through sections 19 and 20 of 24-22w4 with object of draining slough on road allowance.

Completed digging pits on diversions into section 6 of 23-22w4, surveyed in 1908.

Levels taken along greater part of centre line of proposed road across sections 1 and 2 of 26-1w5.

RE-TRACEMENTS.

Retracing North Morley trail through sections 21, 29, 30 and 31 of 24-1w5.
 Retracing through sections 1, 2, 11, 10, 15, 16, 17, 20, 19 and 30 of 25-2w5.
 Retracing through section 36 of 24-2w5.
 Retracing through sections 25, 26, 35, 34 and 33 of 25-3w5.
 Retracing through sections 4, 5 and 6 of 26-3w5

EXAMINATIONS.

Examination for a road up the south bank of Bow River from the bridge upon Blackfoot Reserve south of Gleichen.

Examination of road allowances north of section 20 of 19-1w5

Examination of road allowances north of sections 7, 8, 9, 10, 12 and 13 of 24-23w4 and sections 7, 8, 9, 10, 12 and 13 of 24-24w4.

Examination of road allowances east of sections 6 and 7 of 20-26w4.

Examination of road allowances north of sections 21, 22, 23 and 24 of 22-27w4.

Examination of road allowances east of sections 20 of 15-28w4

Examination of road allowance east of sections 26 and 35 of 16-3w5.

Examination of trail across Squaw Coulee in section 21 of 18-29w4

Examination of road allowances south of sections 3 and 4 and old trail through section 8 of 21-2w5

Examination of road allowance east of sections 10 and 15 and of Cochrane - Dog Pound trail through these sections in 28-4w5

Examination of road allowance east of sections 29, 32, 33 and north of sections 32, 33 and 34 of 25-28w4.

Examination of road allowances east of sections 5, 8, 17, 20, 29, 32, 4, 9, 28, 16, 33, 21, 3, 10, 15, 22, 27 and 34 and north of sections 33, 34, 35 and 36 of 26-28w4, north of sections 31, 32, 33, 34, 35 and 36 of 26-27w4, east of sections 1 and 12 of 27-27w4, east of sections 6, 7, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 and 13, and north of sections 7, 8, 9, 10 and 11 of 27-25w4, east of sections 14, 15, 16, 17, 18, 19, 20, 21, 27, 26, 34, 35 and north of sections 21, 22, 23 and 36 of 27-25w4, east of sections 2, 11, 14, 23, 26, 35, 1 and 12 and north of sections 36, 24 and 12 of 28-25w4, east of sections 18, 19, 30, 31, 7, 17, 20, 16, 21, 28, 33, 34, 27, 35, 26, 36 and 35, and north of sections 7, 8, 9, 19, 20, 21, 22, 23, 31, 32, 33, 34, 35 and 36 and blind lines north of sections 6, 27 and 26 of 28-24w4 and road allowances south of sections 15 and 16 of 27-26w4

Examination of road allowances north of sections 35 and east of sections 35 and 36 of 27-2w5.

Examination of road allowance east of sections 15, 5, 10 and 22 of 29-1w5.

Examination of graded road through section 10 of 26-4w5

Examination of road allowances north of sections 31, 32, 33, 34, 35, 19, 20, 21, 30, 29, 28, 27 of 16-29w4, east of sections 19, 30, 31, 29, 32, 28 and 33 of 14-29w4; east of sections 2, 3, 4, 9, 10 and 11 of 14-29w4 and east of sections 1, 13, 12 and 24 of 14-30w4.

Examination of blind line north of sections 26, 27 and 35 and road allowances east of sections 26 and 35 and north of section 35 of 28-24w4

Examination of road allowance north of section 34 of 23-26w4 and road allowance east of section 3 and through section 3 parallel with C P R in 24-26w4

Examination of road allowances east of sections 31 and 32 of 13-23w4 and east of section 6 of 14-23w4, also surveyed road through these sections

Examination of road allowance east of sections 2, 11, 12, 13 and 14 and north of section 12 of 21-1w5.

Examination for a road through sections 17 and 18 of 23-28w4.

Examination of road allowances east, north and west of section 31 of 28-4w5.

Examination for a road across north-west $\frac{1}{4}$ of section 24 of 24-1w5.

Examination of road across sections 21, 28, 29, 30, 32 and 33 of 21-25w4.

Examination of road allowances east of sections 12, 13, 24, 25 and 36 of 24-23w4, east of sections 6, 7, 18, 19, 30, 31, 32, 29, 33 and 28 and north of sections 7, 8, 19, 20, 31, 32 and 33 of 24-22w4

Examination of road allowances east of section 2 and south of sections 1 and 2 of 24-25w4, also examination of proposed road along C P R. through section 2 of 24-25w4.

Examination of road allowance east of section 29 of 21-29w4.

Examination of sand pit and measurements taken to ascertain quantity of sand in road allowance east of section 9 of 24-1w5

Examination of road allowance east of section 32 of 21-3w5

Examination of road allowance east of section 2 of 21-26w4

Examination for road across section 30 of 23-26w4

Examination of road allowance east of section 12 of 21-28w4

Examination of road allowance north of section 12 of 20-27w4.

Examination of road allowance south of section 1 of 20-27w4

Examination of road allowance east of sections 4, 5, 8 and 9 of 27-17w5.
 Examination of road allowances east of sections 11 and 14 and north of sections 10 and 11 of 28-1w5.
 Examination of road allowance east of section 2 of 16-27w4.
 Examination of road allowances east and road diversion into section 11 of 28-26w4.
 Examination of road allowance north of section 12 of 16-27w4.
 Examination of road allowances east of sections 17, 20, 27 of 27-26w4 and new road across sections 21 and 28 of 27-26w4 proposed by C.P.R.
 Examination of road allowance north of section 8 of 19-27w4
 Examination of road allowances east of section 11 of 15-28w4.
 Examination of road allowance east of sections 6 and 7 of 18-2w5.
 Examination of road allowances east of section 34 of 17-2w5.
 Examination of road allowances north of sections 7, 8, 9, 10, 11, 12, 22, 23, 24, 25 and 26 and east of sections 13, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25 and 26 of 16-1w5; east of sections 13 and 24 and north of section 24 of 16-20w4; north of sections 7, 8, 19 and 20, and east of sections 18 and 19 of 16-29w4.

COAL MINES BRANCH

Inside Staff
 Outside Staff

One clerk in charge.
 Three Inspectors.

During the year two changes were made in the staff of mine inspectors. In the latter part of 1908 Mr E. Heathcote resigned his position as District Inspector of Mines, with headquarters at Calgary, to accept a position with the Crow's Nest Pass Coal Company as superintendent of their Coal Creek colliery. Mr Livingstone was transferred from Lethbridge to Calgary, and Mr Jno T Sterling was appointed to the Lethbridge district to fill the vacancy caused by the transfer.

In April Mr N Fraser resigned his position as Provincial Inspector of Mines, to accept the superintendency of the Michel colliery of the Crow's Nest Pass Coal Co., and Mr Livingstone was appointed Provincial Inspector, Mr Stirling being transferred to Calgary, and Mr A R. Wilson appointed to the vacancy in the Lethbridge district.

That the coal mining industry in the province is steadily expanding may be seen from the following comparison of outputs for the last few years. The year 1909 shows a considerable increase in output over 1908, and doubtless this increase would have been still greater had it not been for a dispute between the operators and their workmen during the early part of the year, which had the effect of closing down most of the large mines in the southern part of the province for about three months and shutting off approximately 75 per cent of the total coal production of the province during the period of inoperation.

YEAR	Output in tons for N W T. (Alberta and Saskatchewan)	Output in tons Alberta
1901	346,649	
1902	510,674	
1903	622,939	
1904	782,931	
1905		811,228
1906		1,385,000
1907		1,834,745
1908		1,845,000
1909		2,174,329

The above figures show that there has been an increase of 17.85 per cent. over the 1908 output.

CLASSIFICATION OF OUTPUT OF COAL IN ALBERTA DURING THE YEAR 1909

	NO. OF TONS
Lignite coal	763,673
Bituminous coal	1,197,399
Anthracite coal	213,257
Coal used in coke production	148,104
Coke produced	87,812
Briquettes produced	89,785

SUMMARY OF STATISTICS

Number of mines at present in operation	121
Number of new mines opened in 1909	32
Number of mines abandoned in 1909	8
Number of tons of coal mined	2,174,329
Number of tons of coke produced	87,812
Number of tons of briquettes produced	89,785
Average number of persons employed inside the mines	3,893
Average number of persons employed outside the mines	1,314
Number of fatal accidents inside the mines	7
Number of fatal accidents outside the mines	2
Number of non-fatal accidents inside the mines	47
Number of non-fatal accidents outside the mines	13
Number of mine manager certificates issued	27
Number of pit boss certificates issued	23
Number of fire boss certificates issued	44

MINES OPENED DURING 1909

NO	LOCATION	OPERATED BY	CHARACTER OF COAL
183	Camrose	Camrose Coal Co	Lignite
184	Pincher Creek	Rolla B. Good	Bituminous
185	Bow Island	D. H. Long	Lignite
186	Bow Island	N. Wallwork	"
187	Carbon	Black Diamond Coal Co	"
189	Carbon	Hedstrom Bros	"
190	Livingstone	R. B. Durrant	"
192	Lethbridge	City of Lethbridge	"
193	Blairmore	West Canadian Collieries	Bituminous
194	Carbon	Campbell & Cook	Lignite
195	Lethbridge	Standard Lethbridge Collieries, Ltd (Prospect work)	"
196	Namoo	Dawkins, Speers & Richardson	"
197	Lethbridge	Big Bow Collieries, Ltd	"
198	Thigh Hill	Wm. Ellis	"
199	Pincher Creek	Western Coal & Coke Co., Ltd	Bituminous
200	Medicine Hat	Ab. Day	Lignite
201	Taber	Golden West Coal Mining Co	"
202	Taber	Superior Coal Co	"
203	Lethbridge	New Barnes Mine Co	"
204	Coleman	McGillivray Creek Coal & Coke Co	Bituminous
205	Bow Island	A. A. Lindquist	Lignite
206	Burdett	Burdett City Coal Co (Prospect)	"
207	Burmis	Carbon Hill Coal & Coke Co	Bituminous
209	Burmis	Head Syndicate, Ltd (Prospect)	"
210	Burmis	Fernie Syndicate, Ltd (Prospect)	"
211	Stettler	Duncan & Richards	Lignite
212	Higgins	C. Hilker	"
213	Taber	S. Ervine	"
214	Three Hills	Dick & Halbert	"
215	Strathcona	E. W. MacKenzie	"
217	Lethbridge	Alex. McWilliams (Prospect)	"
218	Reid Hill	Ashmore & McNaughton	"

MINES OPERATED DURING 1909.

NO	LOCATION	OPERATED BY	CHARACTER OF COAL
2	Canmore	H. W. McNeill Co., Ltd	Bituminous.
3	Lethbridge	Alberta Railway & Irrig Co., Ltd	Lignite
8	Clover Bar	Wm. Daly	"
9	Clover Bar	Clover Bar Coal Co., Ltd	"
28	Namoo	Frank Smith	"
29	Strathecona	White Star Coal Co	"
30	High River	A. D. McPherson	"
32	Cardiff	Cardiff Coal Co., Ltd	"
37	Medicine Hat	H. & W. Ansley	"
40	Hillcrest	Hillcrest Coal & Coke Co., Ltd	Bituminous.
43	Edmonton	Humberstone Coal Co	Lignite
46	Edmonton	Love & Cameron	"
47	Strathecona	Strathecona Coal Co	"
48	Frank	Canadian Coal Consolidated, Ltd	Bituminous.
49	Edmonton	Edmonton Standard Coal Co., Ltd	Lignite.
53	Carbon	Knee Hill Coal Co	"
54	Lethbridge	Jas. Ashcroft	"
55	Lethbridge	G. F. Russell	"
56	Lethbridge	T. R. Baker	"
57	Pincher Creek	Thos. Nash	"
59	Lundbreck	Gallbraith Coal Co., Ltd	"
61	Medicine Hat	Fred Scott	"
64	Lille	West Canadian Collieries, Ltd	Bituminous
69	Clover Bar	Keith & Fulton	Lignite.
70	High River	Wm. Ellis	"
72	Gleichen	Blackfoot Indians	"
74	Edmonton	Jno. Milner	"
77	Lundbreck	Breckenridge & Lund Coal Co	"
80	Bankhead	Bankhead Mines, Ltd	Anthracite
82	Taber	Great Western Coal Co., Ltd	Lignite.
87	Bellevue	West Canadian Collieries, Ltd	Bituminous.
88	Coleman	International Coal & Coke Co., Ltd	Bituminous.
89	Edmonton	Western Coal Co	Lignite.
90	Clover Bar	Byers Bros	"
91	Clover Bar	R. P. Ottewell	"
92	Royal View	Royal Collieries, Ltd	"
99	Edmonton	Milner & Manders	"
101	Namoo	Lindsay Bros	"
103	Carstairs	Simon Downie & Sons	"
104	Diamond City	Diamond Coal Co., Ltd	"
105	Taber	Canada West Coal Co	"
106	Taber	Domestic Coal Co	"
109	Edmonton	Harper Coal Co	"
110	Namoo	Murdoch Sutherland	"
112	Three Hills	Three Hills Coal & Dev. Co., Ltd	"
113	Three Hills	Nicholls & Abriel	"
114	Taber	Jno. Howells	"
115	Carbon	Dodds, Currie & Hoding	"
116	Three Hills	Chas. Catchpole	"
120	Loch Sloy	J. E. Chronister	"
125	Edmonton	Ketchum Coal Co	"
126	Passburg	Latch Collieries, Ltd	Bituminous.
129	Cardiff	Alberta Coal Mining Co., Ltd	Lignite.
130	Taber	Alberta Consolidated Coal Co., Ltd	"
131	Taber	Fox & Simms	"
132	Taber	Canadian Pacific Railway	"
133	Bellevue	Maple Leaf Coal Co., Ltd	Bituminous
134	Reid Hill	Samuel Henderson	Lignite.
135	Lethbridge	W. Stafford	"
136	Long Coulee	H. Thernault	"
137	Reid Hill	W. J. Greenaway	"
142	Three Hills	Geo. Watson	"
143	Bowville	W. J. Bell	"
145	Pincher Creek	Pincher Creek Coal Mining Co., Ltd	"

MINES OPERATED DURING 1909 — *Continued*

NO	LOCATION	OPERATED BY	CHARACTER OF COAL
147	Edmonton	Ritchie Coal Co	Lignite.
148	Edmonton	Stoney Creek Coal Co	"
149	Tofield	J. J. McDevitt	"
150	Tofield	Tofield Coal Co., Ltd.	"
151	Thigh Hill	J. J. Henry	"
153	Passburg	Davenport Coal Co	Bituminous
154	Grassy Lake	Sask. Alberta Collieries, Ltd	Lignite
155	Edmonton	Dawson Coal Co	"
157	Taber	Southern Alberta Coal Co	"
162	Magrath	Magrath Coal Co	"
163	Taber.	J. E. Shirts	"
165	Medicine Hat	Red Cliff Brick Co., Ltd	"
166	Content	J. P. Dweak	"
167	Content	R. W. K. Cousins	"
168	Nevis	R. Jackson	"
169	Exshaw	West Can. Cement & Coal Co., Ltd	"
170	Taber	Rock Spring Sootless Coal Co., Ltd.	"
174	Lethbridge	Rogers Coal Co. (Prospect work).	"
176	Magrath	Ashworth Townsley	"
177	Strathcona	Twin City Coal Co., Ltd	"
178	Namoo	Nash & Williams	"
179	Coutts	Jos. Oborn	"
180	Grassy Lake	J. J. Mills	"
181	Taber	Monarch Collieries Ltd	"
183	Camrose	Camrose Coal Co	"
184	Pincher Creek	Rolla B. Good	Bituminous
185	Bow Island	D. H. Long	Lignite
186	Bow Island	N. Wallwork	"
187	Carbon	Black Diamond Coal Co	"
189	Carbon	Hedstrom Bros	"
190	Livingstone	R. B. Durrant	"
192	Lethbridge	City of Lethbridge	"
193	Blairmore	West Canadian Collieries, Ltd	Bituminous
194	Carbon	Campbell & Cook	Lignite
195	Lethbridge	Standard Lethbridge Collieries, Ltd. (Prospect work)	"
196	Namoo	Dawkins, Speers & Richardson	"
197	Lethbridge	Big Bow Collieries, Ltd	"
198	Thigh Hill	Wm. Ellis	"
199	Pincher Creek	Western Coal & Coke Co., Ltd	Bituminous
200	Medicine Hat	Ab. Day	Lignite
201	Taber	Golden West Coal Mining Co	"
202	Taber	Superior Coal Co	"
203	Lethbridge	New Barnes Mine Co	"
204	Coleman	McGillivray Creek Coal & Coke Co	Bituminous
205	Bow Island	A. A. Lindquist	Lignite
206	Burdett	Burdett City Coal Co. (Prospect work)	"
207	Burmis	Carbon Hill Coal & Coke Co	Bituminous.
209	Burmis	Head Syndicate, Ltd. (Prospect work)	"
210	Burmis	Fernie Syndicate, Ltd. (Prospect work)	"
211	Stettler	Duncan & Richards	Lignite
212	Higgins	C. Hilker	"
213	Taber	S. Irvine	"
214	Three Hills	Dick & Halbert	"
215	Strathcona	E. W. MacKenzie	"
217	Lethbridge	Alex. McWilliams (Prospect work)	"
218	Reid Hill	Ashmore & McNaughton	"

MINES ABANDONED DURING 1909.

- Mine No. 175 —Operated by Jno Marsh, Taber. Section 29, township 9, range 17w4.
 Mine No 173 —Operated by W E. Duncan, Taber. Section 29, township 9, range 16w4.
 Mine No 171.—Operated by Hannah & Moe, Taber Section 27, township 9, range 16w4
 Mine No 169.—Operated by the Western Canada Cement & Coal Co . Ltd., Exshaw. Section 13, township 26, range 5w5
 Mine No 160 —Operated by Jno Thorn, High River. Section 9, township 18, range 2w5
 Mine No. 128 —Operated by The Rosedale Coal Co., Edmonton. River Lots 28 and 30, Edmonton Settlement.
 Mine No 39.—Operated by the Reliance Coal Mining Co., Taber. Sections 3, 4, 9 and 10, township 9, range 16w4.
 Mine No 76 —Operated by The Alberta Coal & Coke Co , Lundbreck. Section 23, township 7, range 2w5.

LIST OF CANDIDATES who Successfully Passed the Examinations
in 1909

NAME	ADDRESS	NO. OF CERT.	CLASS
Ashurst, W	Coleman	82	Fire Boss
Bambling, J	Diamond City	44	Pit Boss
Barnes, B J	Coal Creek	92	Fire Boss
Besso, A	Canmore	80	"
Crowder, J	Coleman	38	Manager.
Clark, J. C	Blairmore	49	Pit Boss
Clyne, J	Canmore	53	"
Churchill, J	Frank		"
Darbyshire, J	Bellevue	35	Manager.
Davidson, W. A	Coleman	25	"
Davies, T	Frank	54	Pit Boss.
Evans, H	Taber	94	Fire Boss.
Evans, D	Frank	83	"
Fox, A	Taber	42	Pit Boss.
Foster, W. R	Michel, B.C	51	"
Fiske, G. E	Edmonton	88	Fire Boss.
Gladwin, J	Edmonton	97	"
Gatiss, R	Long Coulee	85	"
Gilliland, W	Strathcona		"
Griffiths, T. J	Lille	77	"
Howells, N	Michel, B C	55	Pit Boss.
Hutton, I	Bellevue	99	Fire Boss.
Johnson, M	Taber	46	Pit Boss.
Jones, D	Strathcona	48	"
James, D	Pincher Creek		Fire Boss.
Knox, T. K	Coal Creek, B C	28	Manager.
Kellock, G	Coleman	39	Pit Boss.
Kerr, W. R	Coleman	89	Fire Boss.
Kirkeberg, H. S	Michel, B. C	87	"
Kerr, R	Lundbreck	76	"
Kerr, R. T	Passburg	75	"
Lamont, D	Frank	98	"
Love, W	Edmonton	86	"
Moore, S. M	Bankhead	26	Manager.
Maxwell, W	Pincher Creek	27	"
Moore, T. E	Eyremore	47	Pit Boss
Mather, T	Taber	96	Fire Boss.
McDonald, J. R	Medicine Hat	29	Manager.
McLenhan, J. A	Strathcona	39	"
McKelvie, J	Hosmer, B.C	43	Pit Boss.
McDonald, W	Royal View	122	Fire Boss.

LIST OF CANDIDATES who successfully passed the Examinations in
1909—*Continued*

NAME	ADDRESS	NO. OF CERT	CLASS
McDonald, N	Frank		Fire Boss.
McDonald, J. A	Lille	91	"
Oliphant, J.	Bellevue	79	"
Prentice, J.	Lille	45	Pit Boss
Pickering, G	Faber	104	Fire Boss
Parker, L	Bellevue	100	"
Pounder, G	Pincher Creek	84	"
Picton, W	Frank	78	"
Richards, C. C	Bankhead	36	Manager
Rankin, Geo	Michel, B. C	41	Pit Boss
Roberts, E. I	Strathcona	52	"
Roberts, W	Strathcona	95	Fire Boss.
Shone, S	Coleman	33	Manager
Shanks, J	Michel, B. C		"
Stevens, L. C	Coal Creek, B. C	31	"
Stewart, J. M	Ferne, B. C	50	Pit Boss
Sihoon, W	Bellevue	40	"
Smith, A. J. P	Lundbreck	103	Fire Boss
Thorne, B. L	Hosmer, B. C	32	Manager.
Thain, H. S	Royal View	34	"
Thomas, J. D	Hosmer, B. C	37	Pit Boss.
Thompson, T	Coleman	93	Fire Boss
Thomas, J. D	Frank	81	"
Watters, J	Bankhead	30	Manager.
Wark, S. D	Ferne, B. C	37	"
Wright, J. S	Canmore	28	Pit Boss
White, H	Frank	90	Fire Boss
Young, S	Cardiff	101	"
Coulthard, R. W	Blairmore	24	Manager

Issued under Section 17, Coal Mines Act

CERTIFICATES issued by the Government of the North-West Terri-
tories and by Government of the Province of Alberta
previous to 1909

NAME	ADDRESS	NO. OF CERT	CLASS
Anderson, J	Frank	*13	Fire Boss.
Addie, W	Lundbreck	*19	Manager
Alderson, R. D	Coleman	†17	Fire Boss.
Anderson, J	Bellevue	†2	Pit Boss
Aspinall, F	Bellevue	†32	Fire Boss
Aspinall, F	Bellevue	†27	Pit Boss
Aspinall, F	Bellevue	†22	Manager.
Bastian, T. W	Bankhead	*30	Fire Boss
Bastian, T. W	Bankhead	*27	Pit Boss
Bastian, J	Taber	*21	"
Bradshaw, G. B	Nanaimo, B. C	*61	Manager.
Broome, G. H	New Zealand	*46	"
Bastian, J	Faber	*43	"
Brown, J	Banff	*18	"
Bansemmer, R	Bankhead	†14	Fire Boss.
Barber, J	Frank	†7	"
Bowie, J	Frank	†4	Pit Boss.
Burrows, C	Frank	†40	Fire Boss
Brownrigg, J. H	Frank	†35	"
Brown, T	Bankhead	†24	"
Blake, P	Lundbreck	†23	"

CERTIFICATES issued by Government of the North-West Territories
and by Government of the Province of Alberta
previous to 1909—*Continued.*

NAME	ADDRESS	NO. OF CERT	CLASS
Brovey, A C	Edmonton	†64	Fire Boss
Boulton, W E	Bankhead	†48	"
Chestnut, C	Blairmore	**30	Pit Boss
Cawthorne, L	Frank	*46	Fire Boss
Churchill, J	Frank	*45	"
Chestnut, C	Blairmore	*28	"
Cowan, W	Bankhead	* 4	"
Corkill, T	Michel, B C	*13	Pit Boss
Colville, A	(Deceased)	*52	Manager.
Collins, W. F	Blairmore	*24	"
Coulthard, R W	Blairmore	† 8	"
Cooke, J	Bankhead	† 4	Fire Boss
Catchpole, C	Three Hills	† 2	"
Clark, J C	Blairmore	†33	"
Crowder, J	Coleman	†10	Pit Boss.
Church, J. A H	Frank	†11	Manager.
Cunningham, G F	Edmonton	† 7	"
Cole, J. J	Bankhead	†66	Fire Boss
Clyne, J	Canmore	†65	"
Clay, E	Oxville	†28	Pit Boss.
Davies, T	Frank	*49	Fire Boss.
Duggan, R G	Taber	*27	"
Downs, T	Canmore	*24	"
Davies, W J	(Deceased)	*16	"
Davies, D	Coleman	*31	Pit Boss.
Duggan, R G	Taber	*19	"
Davis, A	Lethbridge	* 4	"
Drimnan, R G	Fernie, B C	*29	Manager.
Dixon, S	Lille	†18	Fire Boss
Dickson, G. H	Coleman	† 3	Manager
Duggan, E J	Taber	†41	Fire Boss.
Devonshire, G	Canmore	†31	"
Dixon, S	Lille	†24	Pit Boss
Davies, S	Coal Creek, B C	†18	"
Davies, J	Coleman	†11	"
Dunn, J P	Strathcona	† 9	"
Davis, J	Lethbridge,	†31	"
Dunn, A C	Edmonton	†18	Manager
Downs, T	Canmore	**6	Fire Boss.
Emmerson, C	Bellevue	* 3	Pit Boss
Emmerson, J	Frank	*50	Manager.
Emmerson, C	Bellevue	*49	"
Elliott, D	Blairmore	*20	"
Evans, D	Michel, B C	* 1	Manager.
Eccleston, W	Michel, B C	†16	Pit Boss.
Eccleston, W	Michel, B C	†20	Fire Boss.
Ellis, W	Nanton	†15	Manager
Evans, D	Michel, B C	**14	"
Fairhurst, H	Lethbridge	*39	Fire Boss.
Fraser, G L	Coleman	*25	Pit Boss.
Flint, W. G	Canmore	*16	" "
Flint, W. G	Canmore	*56	Manager.
Finlayson, J	Frank	*30	"
Fraser, N	Michel, B C	† 1	"
Ferguson, C. J	Canmore	† 4	Fire Boss.
Fraser, Jas	Coleman	† 8	"
Fraser, G. L	Coleman	† 1	Manager
Fox, A	Taber	†55	Fire Boss.
Fowers, C. W	Canmore	†50	"
Francis, J	Taber	†29	Pit Boss
Griffiths, E. H	Canmore	*33	Fire Boss
Gates, H	Coleman	*26	"

CERTIFICATES issued by Government of the North-West Territories
and by Government of the Province of Alberta
previous to 1909.—*Continued.*

NAME	ADDRESS	NO OF CERT.	CLASS
Giffen, H. R	Coalfields	*19	Fire Boss.
Green, R	Blairmore	*17	Pit Boss.
Giffen, H. R	Coalfields	*14	"
Green, R	Blairmore	*58	Manager
Graham, C	Nanaimo, B. C.	† 7	"
Harvie, R	Lethbridge	*40	Fire Boss.
Hanes, T	Coleman	*37	"
Harrison, T	Bankhead	*29	"
Hadfield, J	Canmore	*23	"
Hood, A	Frank	*20	"
Holmes, G. E	Fernie, B. C.	*15	"
Hall, O	Bellevue	*26	Pit Boss.
Henrietta, C. M	Byseville, Ohio	*26	Manager.
Heathcote, E	Coal Creek, B. C.	*23	"
Hargreaves, J	Taber	* 9	"
Hamilton, W. L	Passburg	* 4	"
Hardie, W. D. L	Lethbridge	* 2	"
Huntrods, E. S. F	Taber	† 3	"
Holden, J	Bankhead	†13	Fire Boss.
Holden, J	Bankhead	†14	Manager.
Hannen, J	Canmore	† 1	Fire Boss.
Hutchinson, A. M	Coleman	† 6	Pit Boss.
Harvie, R	Lethbridge	† 1	"
Hamilton, R	Lundbreck	† 4	Manager.
Hilling, J	Coleman	†43	Fire Boss.
Hamilton, C	Edmonton	†36	"
Humble, S. T	Bellevue	†29	"
Higgins, A	Bankhead	†25	"
Horne, R	Coleman	†12	Pit Boss
Horne, T	Coleman	† 6	Manager
Henderson, W	Minott	†61	Fire Boss
Harvie, J	Taber	†68	"
Hayes, R	Lundbreck	†60	"
Hallworth, A	Bellevue	†52	"
Horswell, J	Cardiff	†34	Pit Boss.
Harrison, S	Lethbridge	†16	Manager
Hart, J	Edmonton	†23	"
Horne, R	Coleman	†12	"
Hadfield, J	Coleman	**21	Fire Boss.
Hargreaves, J	Taber	**48	Manager
Jones, E	Frank	*47	Fire Boss
James, J	Frank	*25	"
Jones, S. A	Lethbridge	*17	"
Jones, E.	Coalfields	*12	"
Jones, S. A	Lethbridge	*18	Pit Boss
Jones, S. A	Lethbridge	*57	Manager
John, J	Fernie, B. C.	*44	Pit Boss
James, H	Coleman	†53	Fire Boss
Jones, D	Strathcona	†69	"
Keith, T	Taber	†20	Manager.
Kerr, J	Taber	*33	Pit Boss.
Kerr, A	Tonkin, B. C.	*27	Manager
Livingstone, J. C	Lethbridge	*18	Fire Boss.
Livingstone, R	Edmonton	* 7	"
Lowrie, R	Frank	*34	Pit Boss.
Livingstone, R	Edmonton	* 6	"
Livingstone, J. C	Lethbridge	* 5	"
Lewellyn, D. R	Michel, B. C.	*42	Manager.
Livingstone, R	Edmonton	*16	"
Little, J	Coalfields	* 5	"
Little, W. F	Canmore	† 4	"
Learmonth, A. J	Lundbreck	†42	Fire Boss.
Musgrove, J	Canmore	**9	Pit Boss.

CERTIFICATES issued by Government of the North-West Territories
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previous to 1909—*Continued.*

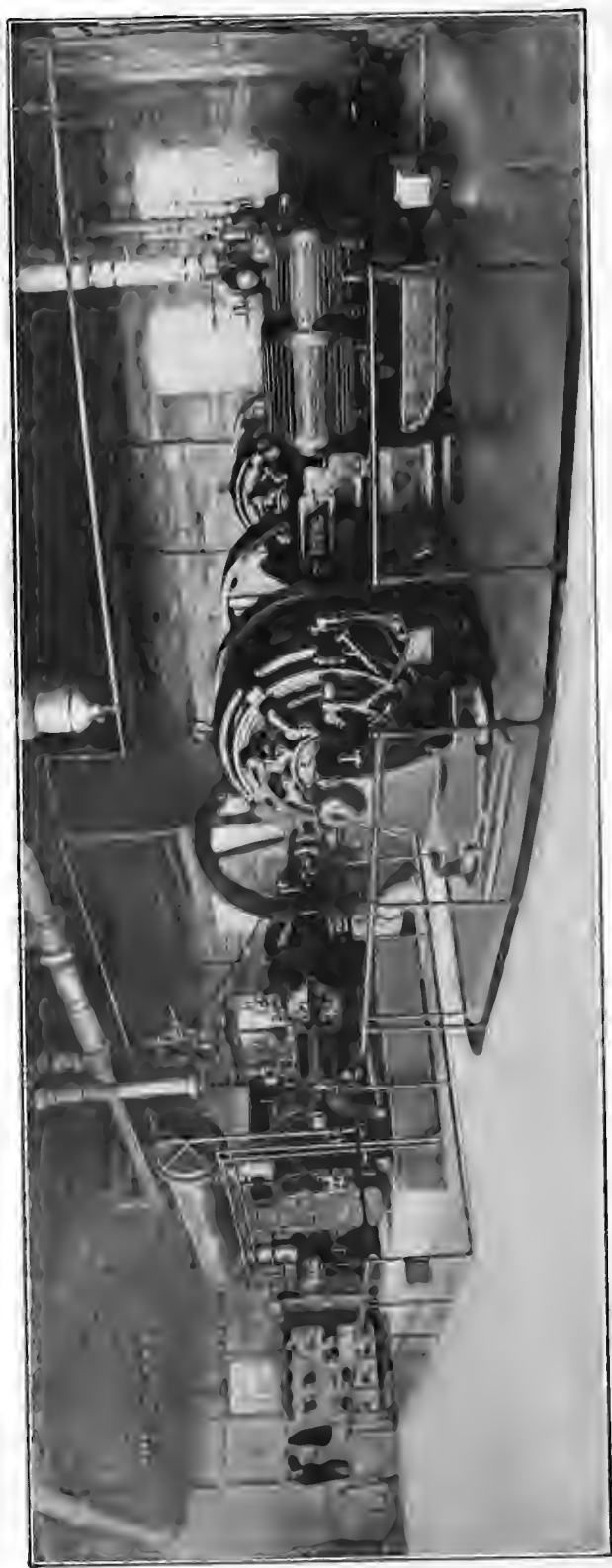
NAME	ADDRESS	NO OF CERT	CLASS
Musgrove, W	Canmore	**32	Pit Boss.
Mills, Thos	Nanaimo, B C	*35	Manager
Mattson, M	Frank	*34	Fire Boss
Musgrove, W	Canmore	* 9	"
Miller, J. K	Michel, B.C	*29	Pit Boss
Musgrove, J	Canmore	* 2	"
Morton, T R	(Deceased)	*63	Manager.
Manley, H L	Fernie, B C	*41	"
Morris, C	Frank	*12	"
Morris, J J	Canmore	* 3	"
Marsh, J	Faber	† 6	"
Morris, J	Lundbreck	† 8	Pit Boss.
Morris, D	Edmonton	†45	Fire Boss.
Machin, J. U	Ellerslie	†46	"
Morgan, D	Edmonton	†17	Pit Boss.
Moore, T E	Eyremore	†56	Fire Boss.
McDonald, J A	Frank	*44	"
McCulloch, A	Frank	*43	"
McGregor, A	Frank	*41	"
McKinnon, H. G	Canmore	*36	"
McKay, J. J	Lethbridge	* 5	"
McKean, J W	Lethbridge	*24	Pit Boss
McVicar, S	Pincher Creek	*23	"
McLean, D	Ladysmith, B.C	*62	Manager.
McVicar, S	Pincher Creek	*59	"
McEvoy, J	Fernie, B C	*17	"
McGregor, A	Frank	† 1	Pit Boss.
McVey, W	Frank	†39	Fire Boss.
McKay, D	Bankhead	† 3	Pit Boss.
McLeary, S	Lethbridge	†58	Fire Boss.
McMillan, W D	Faber	†72	"
McKinnon, A J	Canmore	†62	"
McGarry, M	Michel, B C	†59	"
McLenhan, J A	Strathcona	†51	"
McLenhan, J A	Strathcona	†33	Pit Boss.
McMillan, J H	Lethbridge	†17	Manager
Nansen, T H	Canmore	†15	Fire Boss.
Nelson, H	Lundbreck	†11	"
Nicol, J	Frank	†34	"
Nicol, J	Frank	†36	Pit Boss.
Ostheidt, G	Cardiff	* 1	"
Oliphant, J. H	Bellevue	†26	Fire Boss.
Phillips, C	Frank	*14	"
Phillips, C	Frank	*20	Pit Boss.
Pearson, W. G	Frank	*15	"
Powell, J W	Coleman	*60	Manager.
Pearson, R N	Frank	*38	"
Parker, J. L	Alaska	*25	"
Pearson, R	Fernie, B C	*11	"
Parsons, T L	Edmonton	†26	Pit Boss.
Prentice, J	Lille	†67	Fire Boss.
Powell, A E	Clover Bar	†71	Fire Boss.
Pickles, W	Edmonton	†35	Pit Boss.
Quigley, J. S	Hillcrest Mines	†21	Manager.
Rice, A	Frank	*48	Fire Boss.
Raisbeck, L	Faber	*47	Manager.
Russell, T	Victoria, B.C	*45	"
Richards, J. A	Edmonton	*39	"
Reynolds, E. E	Lethbridge	*33	"
Reid, T	Northfield	† 5	"
Robertson, J	Frank	† 2	"
Rawson, T. S	Frank	† 1	Fire Boss.

CERTIFICATES issued by Government of the North-West Territories
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previous to 1909 —*Continued.*

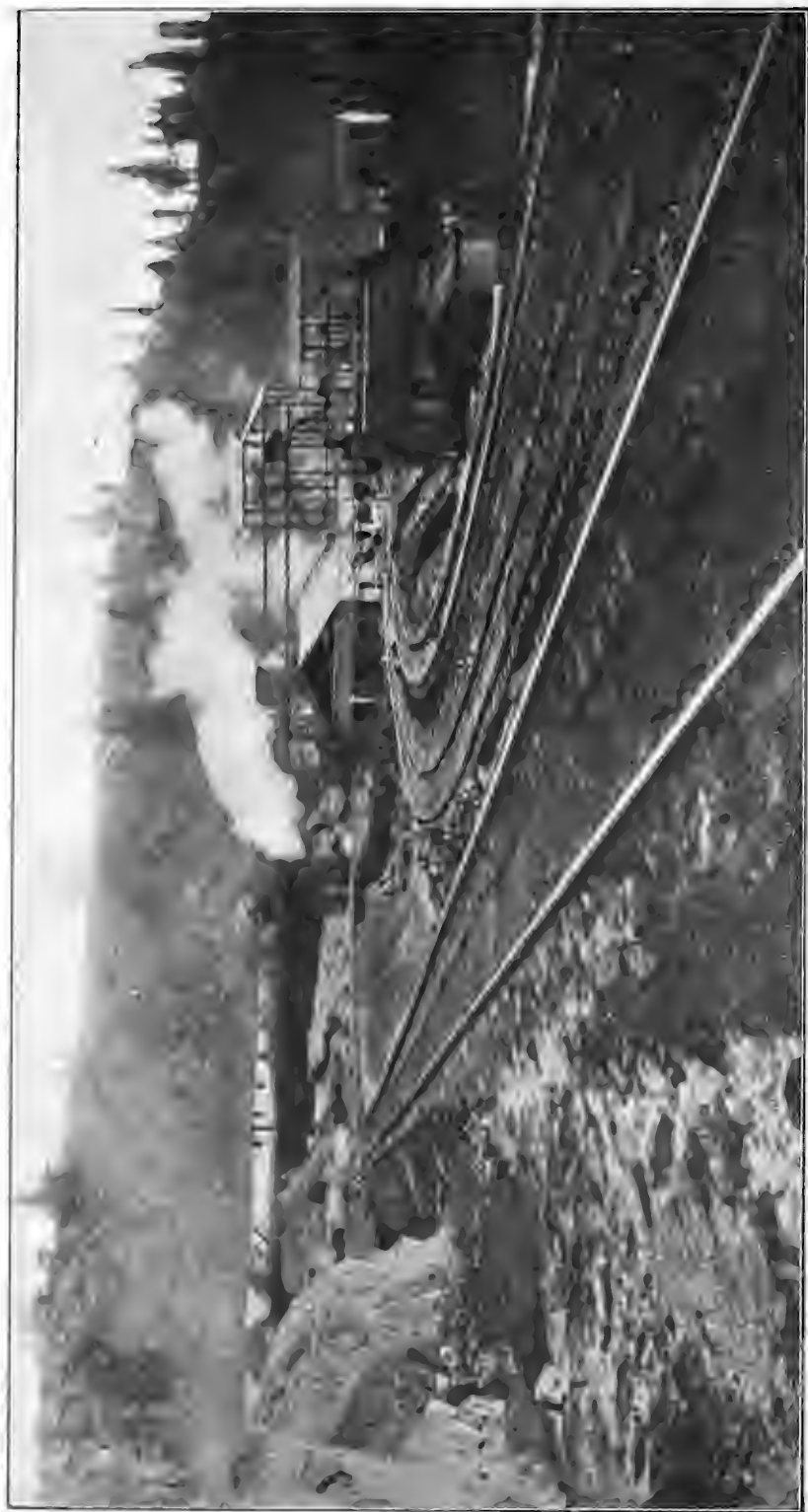
NAME	ADDRESS	NO OF CERT	CLASS
Rice, A	Frank	† 2	Pitt Boss
Roberts, D. E	Coleman	†14	"
Robertson, J	Lundbreck	† 9	Manager
Rose, W	Lundbreck	†54	Fire Boss
Spencer, W. J	Bankhead	*51	"
Scott, J	Lethbridge	*38	"
Smith, H	Canmore	*35	"
Smith, R	Canmore	*32	"
Sedlock, J	Canmore	*22	"
Scott, H	Lethbridge	* 8	"
Scott, R	Lethbridge	* 6	"
Sequin, J. A	Estevan	*22	Pit Boss
Steele, T	Coleman	*12	"
Scott, H	Lethbridge	* 7	"
Sharpe, A	Rossland, B C	*53	Manager.
Stockett, L	Bankhead	*51	"
Symons, C. C	Coalfields	*37	"
Shepherd, F. H	Nanaimo, B C	*34	"
Strachan, R	Fernie, B C	*31	"
Sumister, C	Fernie, B C	*21	"
Stockett, T. R., Jr.	Nanaimo, B C	*10	"
Smith, F. B	Edmonton	* 7	"
Salmond, J. M	Bankhead	† 6	Fire Boss
Sparrow, E	Lundbreck	† 2	"
Smith, R	Canmore	† 3	"
Sparrow, E	Lundbreck	† 7	Pit Boss
Singleton, R	Lundbreck	†17	Fire Boss.
Schmidt, O. P	Edmonton	†44	"
Scott, A. N	Edmonton	†28	"
Sihoon, W	Bellevue	†27	"
Shone, S	Coleman	†23	Pit Boss
Shaw, W	Canmore	†21	"
Scott, A. N	Edmonton	†19	"
Stirling, J. T	Calgary	† 8	Manager
Scott, A	Strathcona	† 5	"
Sparrow, E	Lundbreck	†13	"
Scott, A. N	Edmonton	†19	"
Thomas, D	(Deceased)	*31	Fire Boss.
Turner, S. H	Frank	*21	"
Taylor, Wm	Lethbridge	*10	"
Thomas, D	(Deceased)	*28	Pit Boss
Teppo, H	Bellevue	†19	Fire Boss
Thompson, T	Lundbreck	†16	"
Tonge, T	Lundbreck	† 5	"
Taylor, T	Lundbreck	†30	"
Teppo, H	Bellevue	†15	Pit Boss
Thomas, J. J	Frank	†74	Fire Boss
Thomas, J	Diamond City	†30	Pit Boss
Thain, H. S	Lethbridge	†32	"
Turner, S. H	Frank	**22	Fire Boss
Vola, S	Canmore	†63	"
Webb, J. F	Canmore	*42	"
Waite, A	Taber	*11	"
Watkins, J. W	Canmore	* 3	"
Wilson, J	Canmore	* 2	"
Watkins, W. E	Canmore	* 1	"
Waite, A	Taber	*10	Pit Boss
Williams, T. H	Canmore	* 8	"
Wilkinson, G	Nanaimo, B C	*54	Manager.
Wright, H. B	Fernie, B C	*40	"
Williams, W. P	Bellevue	*36	"
Wall, W. H	Nanaimo, B C	*32	"



SURFACE PLANT OF NO. 1 MINE OF H. W. McNEILL COMPANY, LTD., AT CANMORE.



INTERIOR VIEW OF POWER PLANT, CANADA WEST COAL COMPANY, LTD., TABER.



SURFACE PLANT AND STEEL TOWER IN COURSE OF ERECTION, BELLEVUE MINE OF WEST CANADIAN COLLIERIES, LTD.



SURFACE PLANT OF NO. 2 MINE OF H. W. MCNEILL CO., LTD., AT CANMORE.



SURFACE PLANT NOS. 5 AND 6 MINES, ALBERTA RAILWAY AND IRRIGATION COMPANY, LETHBRIDGE.



SURFACE PLANT OF CANADA WEST COAL COMPANY, LTD., TABER.



TIPPLE OF INTERNATIONAL COAL AND COKE CO., LTD., AT COLEMAN.

CERTIFICATES ISSUED by Government of the North-West Territories
and by Government of the Province of Alberta
previous to 1909.—*Continued.*

NAME	ADDRESS	NO. OF CERT	CLASS
Wilson, A R	Lethbridge	*28	Manager.
Wilson, D G	Hosmer, B C	*22	"
Waite, A	Taber	*15	"
Wyllie, J. B	(Deceased)	*13	"
White, E P	Lethbridge	* 8	"
Whiteside, C. E. S	Coleman	* 6	"
Weatherby, C	Hillcrest Mines	*11	Pit Boss
Watters, J	Bankhead	† 5	Fire Boss
Wilson, W G	Coleman	† 3	"
Wilson, W. G	Coleman	† 3	Pit Boss
Wright, J. S	Canmore	†12	Fire Boss.
Welsh, W	Lundbreck	† 9	"
Weatherby, C	Hillcrest Mines	† 2	Manager.
Willmott, W	Canmore	†38	Fire Boss.
Wrigley, W	Frank	†37	"
Whitelaw, T	Coleman	†25	Pit Boss
Watters, J	Bankhead	†22	"
Watkins, W. E	Lille	†20	"
Watson, W	Coleman	†13	"
Williams, T. H	Taber	†10	Manager
Weston, T	Strathcona	†73	Fire Boss.
Watters, A. G	Bankhead	†49	"
Young, T	Taber	†57	"

*Certificates issued by Government of the North-West Territories, under The Coal Mines Regulations Ordinance

†Certificates issued by Government of the Province of Alberta under The Coal Mines Act

‡Certificates issued by Government of the Province of Alberta under The Coal Mines Regulations Ordinance previous to the passing of The Coal Mines Act

**Duplicate Certificates issued by Government of the North-West Territories, and Certificates issued by the Government of the Province of Alberta under Section 17 of The Coal Mines Act

EDMONTON, January 15, 1910.

JOHN STOCKS, Esq.,
Deputy Minister of Public Works,
Edmonton, Alta.

SIR,—As Provincial Inspector of Mines, I have the honour to submit herewith my annual report for the year ending December 31st, 1909

The development work in connection with the coal mining industry throughout the Province has been very active during the past year and several important mines have been added to the list

At Taber a number of the small companies have consolidated and three larger and more substantial companies formed, viz: The Great Western Coal Co., The Alberta Consolidated Coal Co., Ltd., and The Rock Springs Sootless Coal Co., Ltd. All three of these companies have installed good sized plants, including complete compressed air plants and coal mining machines, and two of them have already procured railway facilities

In the Lethbridge District the Diamond Coal Co., Ltd., have completed the installation of their plant, put in a spur line of railway and are now in a position to push the development of their mine ahead, which will put them in a position to produce a much larger output

during the coming year. The Royal Collieries, Ltd., are pushing the development of their mine ahead rapidly and are getting it into shape for a much larger output. The new plant of the Alberta Railway & Irrigation Co., at their No. 6 mine, has been completed, and the development of the mine is being carried out on a large scale.

In the Crow's Nest Pass the Leitch Collieries, Ltd., have opened a new mine, erected a tippie and obtained railway connections. At Burmus there is another mine opened by the Davenport Coal Co., who have procured railway connections. At Blairmore a new mine has been opened by the West Canadian Collieries, Ltd., which should develop into a large mine. West of Coleman the McGillivray Creek Coal & Coke Co., Ltd., a new company which has been formed, have opened a mine on a twelve foot seam of coal and a new tippie and plant are in course of erection.

In the Pincher Creek District the Western Coal & Coke Co., Ltd., have had a gang of about thirty men prospecting the coal seams on their property during the last few months, and are now opening permanent tunnels.

West of Edmonton, along the Grand Trunk Pacific Railway, a number of companies which have recently been organized have secured extensive properties and have done considerable work in proving the coal seams. At least two of these companies have ordered machinery and are making preparations to develop their mines, and I understand will have railway connections during 1910, which will place them in a position to produce a fair amount of coal by the end of the year.

Following you will find a summary of the development work in the various districts during the past year:

International Coal & Coke Co., Ltd., Coleman.

Authorized Capital \$3,000,000 00.
 President A. C. Flumerfelt, Victoria, B. C.
 Directors. H. N. Galer, Vice-President, Spokane, Wash., U.S.A., C. S. Houghton, Boston, Mass., U.S.A., D. Shults, Spokane, Wash., U.S.A.; W. G. Graves, Spokane, Wash., U.S.A.
 Secretary. W. G. Graves, Spokane, Wash., U.S.A.
 Treasurer B. J. Nicklin, Coleman, Alta.
 Head Office Coleman, Alta.
 Mine Office Coleman, Alta.
 General Manager O. E. S. Whiteside, Coleman, Alta.
 Mine Manager W. A. Davidson, Coleman, Alta.
 Master Mechanic Jas. Scott, Coleman, Alta.
 Pit Bosses. David Davies, Coleman, Alta., Wm. Watson, Coleman, Alta.; Samuel Shone, Coleman, Alta.
 Fire Bosses. Robert Horne, Coleman, Alta., James Crowder, Coleman, Alta.; Robert Kerr, Coleman, Alta.; Wm. Ashurst, Coleman, Alta.

Additions have been made to the machine and carpenter shops and the following tools installed: 2 new lathes, hack saw, steam hammer, band saw, pipe cutter and threader. The boiler house has been extended and two 100 h.p. Leonard return tubular boilers installed, bringing the total boiler capacity up to 1250 h.p. Two condensers have also been installed. Two additional compressed air locomotives of 19,500 lbs. weight have been put into use, making a total of eight compressed air locomotives in use at the mine. The company's snow sheds have been extended. A 10-inch water supply pipe has been laid to the plant and a 500 gallon fire pump installed. The track in the mine has been relaid with 45 lb. steel. A considerable amount of rock tunnelling has been done and preparations are being made to work the coal to the dip of the present gangway.

Bankhead Mines, Ltd , Bankhead, Alta.

Authorized Capital. \$1,000,000 00.
 President R B Angus.
 Directors W H. Aldridge, E. B. Osler, R B. Angus, C R. Hosmer,
 W D. Mathews.
 Secretary: A R G Heward.
 Treasurer B T Coon
 Head Office Montreal
 Mine Office. Bankhead, Alta
 General Manager Lewis Stockett.
 Mine Manager: S M. Moore
 Mining Engineer C C Richards
 Master Mechanic W D Watson
 Pit Boss Donald McKay
 Fire Bosses Thos Bastian, A. Higgins, Jas Cole, Jno. Watters, Alex.
 Watters, Wm Boulton.

A hoisting engine has been installed at the head of slope in No. 4 seam A rock tunnel has been driven from the slope workings in No 4 seam to No 5 seam and is now being extended to intercept No 6 seam The use of explosives for blasting the coal has been discontinued, excepting in the No 6 seam, in which Monobel powder is used This has greatly added to the safety of the mine and has also increased the percentage of lump coal produced

Hillcrest Coal & Coke Co , Ltd , Hillcrest Mines, Alta.

Authorized Capital \$500,000 00
 President Geo. Taylor, M P.
 Directors Geo Taylor, M P , M P David, A. N. Worthington, M P.,
 G W Fowler, W. P Davis, C. P Hill
 Secretary W. P. Davis.
 Treasurer C P Hill
 Head Office Ottawa, Ont.
 Mine Office Hillcrest Mines, Alta
 General Manager. C. P Hill
 Mine Manager J S Quigley
 Mining Engineer C P Hill
 Master Mechanic Wm Fraser.
 Fire Bosses Thos. Taylor, Walter Rose, J Norris, G Pounder

A wash house with concrete floor and walls has been erected, and snow sheds have been extended Monobel powder has been introduced into the mine and is now used exclusively for blasting the coal, which adds greatly to the safety of the mine

The H. W McNeill Co , Ltd , Canmore.

Authorized Capital, \$50,000 00
 President W A McNeill
 Directors W A McNeill, W F McNeill, W F Little.
 Secretary W. F McNeill
 Treasurer W F Little.
 Head Office Canmore, Alta
 Mine Office Canmore, Alta
 General Manager W F. McNeill
 Mine Manager J J Morris.
 Mining Engineer W. G. Flint
 Master Mechanic: H W Evans.
 Pit Bosses: Wm. Musgrove, Wm Shaw
 Fire Bosses: A. J McKinnon, Jas Clyne, D. McDonald, Chas. Fowers
 Jos Sedlock, S. Vola, Adolph Besso.

The following machinery has been installed:

No 1 Mine, above ground:—One 18 ft x 66 in. 125 h p tubular boiler One exhaust steam Hoppes feed water heater with boiler feed pump One first motion 22 in x 36 in hoisting engine for

hauling coal from main slope. The wash house has been enlarged and has now a total of 250 lockers.

No. 1 Mine, below ground:—One 6 in. x 10 in. 7-ton compressed air locomotive. The main air courses have been improved and enlarged. A rock tunnel has been driven from No. 3 seam to No. 1 seam across a fold, a distance of 200 feet, and has reduced the length of the main haulage road about 1,500 feet.

No. 2 Mine., above ground:—A tipple and screening plant with a capacity of 100 tons per hour has been completed and is now in operation. The wash house has been extended and is now fitted up with 140 lockers and hot and cold water shower baths.

No. 2 Mine, below ground:—The main air courses and travelling roads have been enlarged and improved.

The fire bosses at Nos. 1 and 2 mines have been provided with safety lamps of the Wolf pattern. All lamps which were fitted with the screw lock are now fitted with the lead plug lock, which adds considerably to the safety of the mine.

Canadian Coal Consolidated, Ltd., Frank. (Successors to Canadian American Coal & Coke Co., Ltd.)

Authorized Capital. £400,000, divided into 80,000 shares of £5 each.

President: Maurice Tilley, Paris, France.

Directors: O. L. Liegart, Vice-President and Managing Director, Cte Jacques d'Arincourt, Gen. Ad. Ayon, Jacques Bernard, Georges Berthier, Henry Buchet, George Kahon, Leon Clerc, Felix Colomer, Fernad Leconte, Leon Motte, Edmond Paix, and Jean Saint-Crons, of France, and S. W. Gebro, of Montana, U. S. A.

Secretary: C. Buisson, Paris, France.

Treasurer: C. J. Tompkins, Frank, Alta.

Head Office: London, England.

Mine Office: Frank, Alta.

General Manager: A. A. Muller, Frank, Alta.

Mine Manager of Old Mine: Jas. Finlayson.

Mine Manager of Shaft Mine: Joseph Emmerson.

Mining Engineer: A. A. Muller, Frank, Alta.

Master Mechanic: E. Bion, Frank, Alta.

Fire Bosses: Thomas Harrison, Wm. McVey, Jas. Nicol, Thos. Davies, S. H. Turner.

Old Mine:—Preparations are being made to recommence the working of the slope. The main gangway has been improved and enlarged. Safety lamps are used in all places above the level of the main gangway. The use of dynamite has been discontinued and Monobel powder is used for blasting the coal, shots being fired by Bickford-Smith igniters. The fire bosses have all been provided with safety lamps of the Wolf pattern, and the Clanny lamps which are now used by the workmen are gradually being replaced by the Wolf lamp.

Shaft Mine:—The following additions have been made to the surface plant: A new bankhead has been erected; two Stirling water tube boilers, 225 h.p. each; one low pressure Ingersoll air compressor for operating rock drills; and a saw mill with a capacity of 25,000 feet per day have been installed. Foundations have been laid for four Babcock & Wilcox boilers of 250 h.p. each. A power house is being built to accommodate a 500 k.w. electric generator, exciter, switchboard and necessary fittings, which are now on order. A ventilating fan has been placed at the mine and the development of the underground working is being pushed ahead.

West Canadian Collieries, Ltd , Blairmore.

Authorized Capital \$3,600,000 00.
 President A Wickart.
 Directors A Wickart, F. Lefebvre, E. Ory, E. Decoster, Baron R de La
 Grange O'Tard, E. Carlier Kolb, J. Cavois, Conte H de Castellane,
 L. J. Forget, J J Fleutot.
 Secretary-Treasurer A Chesquier.
 Head Office London, England.
 Mine Office: Blairmore, Alta.
 General Manager R W. Coulthard
 Mining Engineer L P Robert.

Bellevue Mine

Mine Manager. Chas Emmerson.
 Pit Bosses Jno Anderson, H Teppo.
 Fire Bosses A Hallworth, J Oliphant, W. Sihvon, J. H. Brownrigg, W.
 Walsh, J. H Oliphant, M Mattson

A steel tippie fitted with the Green dump with a capacity of 1,500 tons per day is being erected by the Bartlett Snow Co., and one high pressure compressed air plant, one eight-ton and two five-ton compressed air locomotives have been installed. The present mine track is being relaid with 40 pound steel. One 78-inch Sirocco fan, capable of giving 100,000 cubic feet of air per minute with a two inch water gauge and one 150 k w electric generator for lighting purposes, driving fan, tippie, etc , have been put in The power house is being built of masonry. A considerable amount of diamond drilling is being done on the property to ascertain the quality and position of the coal seams at a depth of 400 to 500 feet

Lille Mine.

Mine Manager W P Williams.
 Pit Boss J Prentice
 Fire Bosses S. Dixon, T J. Thomas, A Matheson, J A. McDonald.

Safety lamps of the Wolf pattern have been installed in all districts where gas has been found A considerable amount of prospect work has been done on this property in order to prove the thickness and quality of the coal

Blairmore Mine

Mine Manager Raoul Green
 Pit Boss Chas Chestnut
 Fire Bosses J Rawson, C Phillips.

This is a new mine which has been opened during the past year. The main and counter gangways have been driven a distance of 2,600 feet on strike of coal seam, which is 6½ feet in thickness and is known as the No. 2 seam A prospect tunnel is being driven to locate No 4 seam A coal dumping and loading station for railway cars has been erected and a spur track laid from the C.P.R. Crow's Nest line to the mine, a distance of about half a mile.

McGillivray Creek Coal & Coke Co., Ltd., Coleman.

Authorized Capital \$3,000,000 00.
 President: Lorne A. Campbell
 Directors James A. Nowell, Vice-President, St. Paul, Minn ; Byron E.
 Sharp, Spokane, Wash , Thos Pame, Glencoe, Minn , H. L. Simons,
 Glencoe, Minn.; L. A Campbell, Spokane, Wash.

Secretary-Treasurer: Byron E. Sharp
 Head Office: Spokane, Wash.
 Mine Office: Carbondale, Alta.
 General Manager: J. K. Cram.
 Mine Manager: J. W. Powell
 Mining Engineer: Jno. Robert.
 Pit Boss: David Roberts

This is a new mine which has been commenced at Carbondale, near Coleman. No. 2 seam, which is 12 feet thick, is being developed. A steel tippie with a handling capacity of 5,000 tons per day is being erected by the C. O. Bartlett & Snow Co., of Cleveland, Ohio. A power house, built of masonry, has been erected, size 88 ft. x 60 ft. A machine shop, 102 ft. x 28 ft., also built of masonry, and fitted up with a full complement of all necessary tools, and new offices have also been erected. The following machinery has been installed: One 150 k.w. Ridgway generator, for supplying power for locomotives, tippie and machine shop and for lighting purposes, one five ton electric locomotive with rack rail for hauling the coal from the mine to the tippie, a distance of nearly two miles; a Sirocco fan, electrically driven, capable of giving 60,000 cubic feet of air per minute with a 3 inch W. G. Steel cars with a capacity of 4½ tons, with automatic couplings, are used. The mine track is being laid with 55 lb. steel. Two 150 lb. Watrous boilers have been installed. A well has been sunk and a water supply for the plant is pumped up to a tank with a capacity of 10,000 gallons. Railway sidings have been put in and foundations are being prepared for a box car loader.

The Davenport Coal Co., Burmis

Authorized Capital: \$500,000.00.
 President: F. H. Mason
 Directors: Jno. A. Finch, P. H. Mason, W. H. Cowles, Chas. Hussey, C. P. Lund.
 Secretary-Treasurer: Chas. Hussey
 Head Office: Spokane, Wash.
 Mine Office: Burmis, Alta.
 General Manager: E. Dempsie
 Mine Manager: Jas. Darbyshire

This property was formerly operated by the East Crow's Nest Coal Co., Ltd. Considerable development work is being done, also grading for railway sidings. This mine should be a large producer in the future.

Leitch Collieries, Limited, Passburg.

Authorized Capital: \$1,000,000.00.
 President: Malcolm Leitch.
 Directors: A. Leitch, J. D. McBride, G. O. Allsbrook, J. C. Drewry, D. H. McNachan, F. C. Baker, A. W. Fraser, W. A. McLeod, D. E. Williams, M. Leitch.
 Secretary: Ed. Holroyde
 Treasurer: Ed. Holroyde
 Head Office: Winnipeg, Man.
 Mine Office: Passburg, Alta.
 General Manager: W. L. Hamilton.
 Mine Manager: T. H. Williams.
 Pit Boss: Jno. Kerr
 Fire Boss: J. D. Thomas.

The output for the past year from the old mine, which is south of the Canadian Pacific Railway, Crow's Nest Branch, is more than double that of 1908. Safety lamps of the Wolf pattern are now used throughout this mine.

A new mine has been opened about 2 miles north of the old mine and a seam of coal 15 feet in thickness is being developed. A spur track has been laid from the C P R , a distance of $1\frac{1}{4}$ miles, to where a tippie is erected, equipped with scales, shaking screens, picking tables, etc. A power house has been built and the following machinery installed: Two locomotive boilers, hoisting engine and low pressure air compressor

Galbraith Coal Co , Ltd., Lundbreck.

Authorized Capital \$250,000 00
 President Andrew Laudlaw, Spokane, Wash
 Directors: Andrew Laudlaw, Mose Oppenheimer, J H C. Willoughby, J G Short, A L Richardson
 Secretary-Treasurer J G Short.
 Head Office Spokane, Wash
 Mine Office Lundbreck, Alta
 General Manager J G Short
 Mine Manager Edwin Sparrow
 Master Mechanic Simon McDonald
 Fire Boss Peter Blake

No 2 seam has been opened up and is being developed The tippie has been extended and a revolving screen installed.

Maple Leaf Coal Co , Bellevue.

Authorized Capital \$500,000 00.
 President D M Drumheller
 Directors D M Drumheller, Alfred Cooledge, A. Kuhn, C. P Lund, E. Dempsie
 Secretary C. P Lund
 Treasurer. A Kuhn
 Head Office Spokane, Wash
 Mine Office Bellevue, Alta
 General Manager E. Dempsie
 Mine Manager F Aspinall
 Fire Bosses Levi Parker, Rufus Bansemer.

This company has opened up a new seam of coal during the last year and is now operating two seams Monobel powder is used for blasting the coal and is giving good results. Safety lamps of the Wolf pattern are used throughout the mine

Carbon Hill Coal & Coke Co., Burmis.

Authorized Capital: \$2,000,000 00.
 President H W Wright.
 Directors H W. Wright, J. F. Edwards, F. B. Gregg, Wm. Watson, H. J. Matheson
 Secretary-Treasurer. J F. Edwards.
 Head Office. Spokane, Wash

This company has done considerable prospecting during the past summer and have proved nine workable seams of coal, some of which are over eight feet in thickness and of a good coking quality. It is expected that the railway which has been surveyed will be built n to the property in the early part of next summer.

The Head Syndicate, Ltd , Lundbreck

Authorized Capital: \$275,000 00.
 President: James Head.
 Directors. H. S. Barton, G C. Montague, Leslie Hill.
 Secretary. E. Holt.

Head Offices: Edmonton, Alta., and London, England.
 Mine Office: Lynx Creek, Lundbreck P.O.
 General Manager: Leslie Hill
 Mine Manager: W. Rowe
 Mining Engineer: Leslie Hill

This company has done a considerable amount of prospect work, on what is known as the Hastings property, and has been successful in proving a seam of coal of excellent quality, with an average thickness of 10 feet and there are indications of other seams of a good quality on this property. Most of the prospect work has been done along the north side of Lynx Creek.

Western Coal & Coke Co., Ltd., Pincher Creek.

President J. B. Ferguson, Montreal
 Managing Director: Chas. Fergie, Montreal.
 Secretary-Treasurer: Samuel Mains.
 Head Office: Montreal.
 Mine Office: Pincher Creek.
 General Manager: Wm. Maxwell.
 Mine Manager: Samuel McVicar
 Pit Boss: Thos. McDonald

This property is located in township 6, range 2, west of the 5th meridian, about 12 miles west of Pincher Creek. Considerable prospecting work was done on the property during the past summer, and several coal seams proved, one of which is seven feet thick and of a good coking quality. This seam is opened up by a tunnel, which has been driven a distance of 1,500 feet and will be used as a permanent opening. The following plant has been installed to carry on the work: 2 boilers, 1 hoisting engine, 2 pumps. A number of temporary buildings have been erected, including offices, wash house, engine house, blacksmith shop, etc.

Alberta Railway & Irrigation Co., Lethbridge

President E. T. Galt.
 Vice-President: Col. K. B. B. Wodehouse
 Directors: Sir Edward Clouston, Bart., A. M. Nanton, W. Burdett-Coutts, M.P., J. H. Dodgson, Jno. Galt, W. M. Ramsay, Edwin Waterhouse
 Secretary: David Amey
 Managing Director: A. M. Nanton.
 Comptroller: E. H. Wilson
 General Manager: P. L. Naismith
 Colliery Superintendent: W. D. L. Hardie.
 Pit Bosses: Jno. C. Livingstone (No. 3 Mine), S. Jones (No. 6 Mine)
 Fire Bosses: H. Fairhurst, R. Scott (No. 3 Mine), Jno. Davis (No. 6 Mine)
 Master Mechanic: Jno. Scott.

The steel tippie at the No. 6 mine referred to in the report for 1908 is now completed and is equipped with Ramsey pusher for caging cars, car retainers, cross-over dumps, weigh scales, screens, picking tables, and necessary conveyors for handling four sizes of coal and rock. The tippie is designed for four loading and one by-pass track, and is fully equipped for handling 1,800 tons of lump coal in eight hours.

In addition to the tippie, the following equipment has been installed: 2 sets of railway scales; Ottawa tilting box car loader, Sirocco ventilating fan, 114 inch diameter with a capacity of 200,000 cubic feet of air with the 6 inch W.G., rope driven with a pair of 16 in. x 36 in. Leonard Corliss engines; two units of Babcock-Wilcox

water tube boilers, 500 h p. each, equipped with Babcock & Wilcox chain grate stokers and induced draft; and two American Blower Company's fans

The boiler house is built to accommodate two additional units of Babcock & Wilcox boilers, which will be installed when required.

The power house is built to accommodate three Rand air compressors, three electric generators, two boiler feed pumps, feed water heaters and hoisting engine. Of the above, the following are now installed: 1 duplex Rand air compressor, simple steam, cross-compound air, with a capacity of 3,000 feet of free air per minute; one 200 k w. generator, A C, direct connected to a Robb engine; two Wier boiler feed pumps; two feed water heaters; hoisting engine, 30 in x 48 in, direct connected to a 12 foot drum and equipped with a steam brake, steam throttle and Nicholson automatic stop. A travelling crane for erecting machinery has also been installed in the power house

The shaft is equipped with cages 18 ft in length, each carrying two cars placed tandem, and plow steel hoisting ropes, 4 7-8 in in circumference. The pit bottom is made large and roomy, the roof being supported with 18 in steel beams. The underground workings are laid out for endless rope haulage

Royal Collieries, Ltd, Lethbridge

Authorized Capital \$3,000,000 00

President A C Flumerfelt, Victoria, B C.

Directors A C Flumerfelt, A Laidlaw, H. N. Galer, H. Davidson, W. C. Nichols

Vice-President. A. Laidlaw, Spokane, Wash.

General Manager E. P. Barker, Royal View, Alta

Mine Manager H. S. Tham, Royal View, Alta.

The development of the underground workings in this mine has been pushed ahead rapidly during the past year and now an output of about 200 tons per day is produced and the indications point to a large increase in this output during the coming year. A number of new cottages for the workmen and new office buildings have been erected. Four Ingersoll-Sargent coal cutters have been added to the equipment of the mine

Diamond Coal Co, Diamond City,

Authorized Capital \$1,500,000 00.

President: Hon G H V. Bulyea, Edmonton, Alta.

Vice-President Dr. C W. Clarke, Winnipeg, Man

Directors. G F. Stephens, Winnipeg, Dr. L. N. McKechnie, Vancouver, J M Johnson, Lethbridge, H D Graves, Calgary, Thos. Underwood, Calgary

Managing Director: Thos Underwood, Calgary, Alta.

Mine Manager. Jno Bamling

This company has during the past year installed the following equipment: One new electric generator, A C., 105 k.w, 2,200 volts, 75.5 Amp, 3 Phase, 60 cycles, 240 R P M, direct connected to a Robb steam engine 15 in. x 16 in, together with exciter, switch-board and necessary fittings, one Morgan-Gardner electric chain coal cutter; one Jeffrey electric chain coal cutter. A new branch line of railway has been laid from Kipp to the mine and equipped with locomotive, passenger coach, etc. This mine is now fully equipped for an output of 1,000 tons per day. The development of the underground workings is being pushed ahead and the indications point

to a large increase in the output from this mine, which will add materially to the supply of domestic coal during the coming year.

Lethbridge District

The Lethbridge District is the largest domestic coal producing centre in the province and will no doubt retain that position for some time to come. The building of the C P R. viaduct across the Belly River valley at Lethbridge has opened up a large coal area just north and west of the river, on which several prospect shafts have been sunk and a number of bore holes put down during the past year, with favourable results. The development work at the mines and prospect work throughout the district has been actively carried on during the year and from present indications there will be a substantial increase in the output from these collieries for the year 1910.

Canada West Coal Co , Ltd., Taber.

Authorized Capital \$2,000,000 00
 President O. A. Robertson.
 Vice-President S. H. Bowman
 Chairman of Board F. E. Kenaston
 Directors F. B. Lynch, J. S. Hough.
 General Manager V. S. Kidd.
 Mine Manager J. Bastian.

The output from this mine is gradually increasing and has now reached 850 tons per day. An air shaft has been put down near the face of the main north entry and has reduced the length of the airways by 50 per cent. When the airways which are now being driven are connected, all ventilating doors can be removed from the main haulage road, which will facilitate to a certain extent the transportation of coal and will insure a more efficient supply of fresh air at the working face.

Great Western Coal Co , Ltd , Taber.

President E. J. Wood
 Directors T. Wolford, E. Harker, H. Harker
 Sec. Treas. R. Ihey
 Manager R. G. Duggan
 Pit Boss, J. Duggan.

This company has during the past year installed the following machinery: One Ingersoll low pressure air compressor, with a capacity of 800 feet of free air per minute; a number of coal cutters (Ingersoll puncher) with pipe lines and necessary fittings; two new Jencks locomotive boilers and a new hoisting engine. The tibble has been remodelled and fitted with screens for sorting two sizes of coal.

Rock Springs Sootless Coal Co , Taber

President B. K. Bullock
 Vice-President B. H. Bullock
 Directors B. K. Bullock, W. Henderson, R. G. Reynolds
 Secretary-Treasurer R. G. Reynolds
 Manager W. Henderson

This company has during the year installed three locomotive boilers with a combined capacity of 300 h p, one straight line single stage Ingersoll air compressor with a capacity of 1,000 feet of free air per minute and nine coal cutters, viz.: Three Ingersoll-Sargent

punchers, four Siskols and two little Hardies. A new tippie has been erected, equipped with scales, screens, etc. A spur line of railway and sidings and railway scales have been put in.

Alberta Consolidated Coal Co., Ltd., Taber

Authorized Capital: \$1,000,000.00
 President: D. Wilson
 Secretary-Treasurer: W. H. Turner.

This company has during the year absorbed the Scranton and Central Coal Companies and has put in the following equipment: Three boilers with a combined capacity of 270 h p, hoisting engine, one straight line single stage Ingersoll air compressor with a capacity of 1,000 feet of free air per minute, eight coal cutters (Ingersoll-Sargent punchers), and necessary pipes and fittings, a water supply system, including pumping station, 7,000 feet of 5 in. water main and stand pipe with a capacity of 40,000 gallons. A tippie has been erected, equipped with screens, etc., for sorting two sizes of coal. Railway sidings and spur lines have also been laid.

Other coal mines operating in the Taber District are as follows: The Bullock Mine, operated by the Domestic Coal Company; the Independent mine, operated by Messrs. Fox & Simms; the Monarch mine, operated by the Monarch Collieries, Ltd.; the Hopeful mine, operated by Jno. Howells; the Star mine, operated by the Southern Alberta Coal Co.; the Golden West Mine, operated by the Golden West Coal Co.; the Superior mine, operated by the Superior Coal Co.; and a number of small mines operated by individuals who each employ a few men. The total daily output of these mines is approximately three hundred tons.

The Taber district is now an important mining centre, being the third largest domestic coal producing district in the province, and when all the mines in that district are working full time the output reaches approximately fifteen hundred tons per day. Owing to lack of railway facilities, however, the smaller operators are only able to compete on the market during the busy season of the winter months.

A considerable amount of prospecting work has been done throughout the district during the year and a number of valuable coal properties proven, and indications point to a continued increase in production in this district during the next few years.

Medicine Hat, Grassy Lake, and Milk River Districts

A few small mines are operating in vicinity of Medicine Hat, Grassy Lake and Milk River, but owing to lack of railway facilities the output so far is regulated to a great extent by local demand.

Little Bow District

In the Little Bow district, about 50 miles north of Lethbridge, there are seven small mines operating, producing a few tons of coal, the output being regulated by the requirements of the settlers throughout the district.

Big Bow Collieries, Limited.

This property is located in township 17, range 17, west of the 4th meridian, on the Big Bow River, about 16 miles south of the C.P.R.

main line. Considerable prospecting work was done on the property during the year and a 5-foot seam of domestic coal of good quality, with a sandstone roof, has been proved.

South Fork of the Old Man River.

A considerable amount of prospecting has been done in this district and a large number of coal seams have been proved. Owing to the lack of transportation facilities there has been practically no development work done yet. A number of different companies have secured extensive properties in this district, and with the coming of railways a considerable production is to be expected. The coal is of a good quality and should find a ready market. It is expected that early next year a railway will be built from Burmis in to the Carbon Hill Coal & Coke Company's property, and from it branch lines into the other properties in the district.

Three Hills and Knee Hill District

The mines in this district are being worked on a small scale. Owing to the lack of transportation facilities the amount of coal produced is regulated entirely by the local demand. It is expected however that within the next few months a railway will be built through this district, and as the coal is of fairly high grade it should find a ready market. Arrangements are now being made in the development of the mines by several companies in this district so that when the railway does get through they will be in a position to ship a considerable output.

Edmonton Standard Coal Co., Ltd., Edmonton.

Authorized Capital. \$600,000 00.
 President: H. Waddington, Toronto.
 Vice-President: H. G. Ellis, Toronto.
 Secretary-Treasurer: Wm. Munns, Toronto.
 General Manager: W. C. MacKay, Edmonton.
 Head Office: Toronto
 Mine Office: Edmonton

During the past year this company has installed at their mine a hoisting engine, locomotive boiler and ventilating fan, and the output from the mine has been increased about 40 per cent over that of the previous year.

Alberta Coal Mining Co., Ltd., Cardiff.

Authorized Capital \$250,000.00.
 Directors: Jas. L. Bell, W. L. Carter, G. S. Montgomery
 Secretary-Treasurer: Geo. S. Montgomery
 Head Office: Edmonton
 Mine Office: Cardiff.
 Mine Manager: F. B. Smith.
 Pit Boss: Jno. Horswell

The tippie at this mine has been remodelled and screens for three sizes of coal installed.

Ritchie Coal Co., Edmonton

General Manager: H. C. Ritchie.
 Mine Manager: A. N. Scott.

The following machinery and equipment has been installed at this mine during the past year:

A 50 h p Leonard return tubular boiler, hoisting engine, ventilating fan, two pumps, weigh scales and tippie capable of handling about 250 tons of coal per day

Clover Bar Coal Co Ltd., Edmonton

President H. E. R. Rogers
Vice-President A. W. Denman
Directors H. E. R. Rogers, A. W. Denman, H. H. Robertson
General Manager J. J. Denman.
Mine Manager A. C. Dunn

A spur line has been laid from the G T P. railway, a distance of about a quarter of a mile to where a new shaft has been sunk, and the following machinery installed: Two 100 h p. Robb return tubular boilers; Hoppes feed water heater; hoisting engine, 14 in. x 30 in direct connected to a 4½ ft drum, and a 10 k w. electric generator for lighting purposes and driving tippie machinery. The main entries in the old mine are being driven to connect with the new shaft and when the tippie and plant are completed all the coal from the old mine will be hoisted and dumped direct into railway cars.

Humberstone Coal Co., Edmonton.

This company has sunk a new shaft and installed the following machinery. Hoisting engine; locomotive boiler and two pumps. A temporary tippie has been erected and the main entries are being driven to connect with the workings of the old mine

The output from the mines in the Edmonton district for the past year shows a considerable increase over that of 1908. This increase is, to a certain extent, due to the gradual widening of the market, more coal being shipped to outside points. The mines in this district are operated on a comparatively small scale, still the aggregate output taken from all the mines is fairly large and Edmonton stands as the second largest domestic coal producing centre in the province.

West of Edmonton the first coal lands that have been prospected are along the north side of Wabamun Lake. Small seams of coal crop out on the railway cuttings and a number of prospects have been sunk in the coal, which reaches a thickness of from 18 to 22 feet, with one band of shale about the centre ranging from six inches to a foot

Further west we reach the crossing of the Pembina River where the coal can be seen out-cropping on the river bank. At this point coal mining has been carried on in a primitive way for a number of years. Besides these out-croppings on the river, a large amount of money has been expended in drilling on the property of the Pembina Coal Company, Limited, with very favourable results. The coal is of the same geological age as that prospected on Wabamun Lake, and in character very similar. Proceeding westward from the Pembina River, the country is fairly well wooded, mostly with poplar, until about Mile 109, where there are some large spruce timber limits and a sawmill in operation.

The next sign of coal to be seen is at Wolf Creek, Mile 120, where a few small coal seams have been located, but nothing has yet been proved economically workable. The Grand Trunk Pacific Railway at this point crosses the mouth of Wolf Creek at a great height and also the McLeod River at a very high level.

Following the McLeod River westward, large beds of sandstone of the lower Laramie series are passed to Mile 142. In this vicinity it is intended that a branch railway will strike southward to tap the coal fields, following the high lands between the Embarras River and the McLeod River. At the head waters of the Embarras River a large amount of prospecting was done last summer by the Yellowhead Pass Coal & Coke Company. At least four workable seams have been prospected and several tunnels drifted in for about 100 feet. The lower seam is approximately 40 feet in thickness, but inter-stratified occasionally by beds of carbonaceous shale. The other coal seams are cleaner and should make a good steam coal. On the same line of strike south-east of this property is the coal property of the Pacific Coal Company, who own a large area, approximately 35,000 acres. This property has been thoroughly prospected and several tunnels driven in the lower seam. The south-east end of this property is on a different watershed, viz.: the Pembina River.

Crossing the Pembina River southward to the forks of the Brazeau River, which is one of the main branches of the North Saskatchewan River, a coal property has been located by the Canadian Northern Railway, on which there has been a fair amount of prospecting work completed and the coal field proved. This point is much nearer the mountains than any of the other coal properties. Directly due south of the main fork of the Brazeau lie the coal areas of the German Development Company, who have consolidated with the Canadian Northern Railway and are now termed the Rocky Mountain Collieries, Limited. These large coal areas have been thoroughly prospected by Mr. McEvoy, late Geologist for the Crow's Nest Pass Coal Company, and according to his report in the "Canadian Mining Journal," the coke produced from these coals is at least equal to that produced from the coking coals of the Crow's Nest field. In this vicinity, which is townships 39, 40 and 41, ranges 17, 18 and 19, west of the 5th meridian, other coal areas have been located, but very little work has been done on them. Following the same strike of these coal measures in the vicinity of townships 43, 44 and 45, ranges 20, 21 and 22, other large areas of coal lands have been located and some prospecting work done on them.

Farther to the north-west, on the head waters of the McLeod River, which is the next watershed, coal areas have been located by the Canadian Northern Railway and other parties. These coal lands show an analysis similar to that of the Crow's Nest field. On the head waters of the west fork of the McLeod River a large area of coal lands has been located and fairly well prospected. The outcrops at this point are not so prominent as the strata is at a less angle.

Following the pack trail from the west fork of the McLeod River we reach the head waters of Gold Creek, which is on the watershed of the Athabasca River. About the mouth of Gold Creek and its junction with Prairie Creek, a coal seam about four feet in thickness has been located, of a high bituminous character. At the mouth of Prairie Creek we again reach the line of the Grand Trunk Pacific Railway.

Following the railway westward, passing through the Gap or Folding Mountain, another coal area has been located on Fiddle Creek, on which a fair amount of prospecting has been done. The folding at this point, however, is greater than that to the south, but the coal of a higher quality.

Farther west, towards the summit of the Rocky Mountains, small outliers of cretaceous measures have been located north of the railway, but no work has yet been done on any of them. The summit of the Rocky Mountains and the western boundary of Alberta is reached at Dominion Prairie, where the last outliers of the coal bearing cretaceous measures are found.

WORK OF INSPECTION.

The work of inspectors has materially increased during the year. The large number of new settlers who have been locating throughout the province has considerably increased the demand for domestic coal in the outlying districts and has resulted in a number of small mines being opened in the lignite field. Some of these mines are located a long distance from the railways and it requires as much time to reach one of them and make an inspection as it does a large mine which is conveniently located. At the older mines the underground workings are expanding and becoming more difficult to ventilate, the haulage roads are increasing in length and the transportation of the output is being accelerated, requiring the installation of additional machinery, and as a result more time is required to make a thorough examination.

The new legislation commonly known as the "Eight Hour Law," which came into force on April 1st, has created a new condition at the mines respecting the hours of work, and the inspectors have had to devote a considerable amount of their time to the adjustment of the various difficulties met with in connection with the changes in the methods of operating the mines necessary to conform with the new regulations.

The inspectors have made their regular rounds of inspection of all the mines and investigated all fatal and serious accidents, in each case removing as far as practicable the dangers contributory to such accidents.

The installation of safety lamps and the use of permitted explosives in all the bituminous mines has received careful attention during the year and I am pleased to report that the opposition previously raised by some of the operators to the adoption of these safeguards is gradually decreasing. I might explain that while Alberta has no list of permitted explosives, we have up to the present been guided by the British permitted list.

ACCIDENTS

From the list of accidents for the past year, it will be seen that there have been nine fatal accidents, seven of which occurred below ground and two on the surface. Of the fatal accidents below ground, three were caused by falls of roof, two by mine cars, one by suffocation by noxious gases and smoke from mine fire and one by a miner falling down chute. Both fatal accidents above ground were caused by parties being caught between the draw-heads while in the act of coupling railway cars. The three fatalities caused by falls of roof occurred at the working face while the parties were engaged at their regular work. The fatal accident due to falling down chute occurred while the miner was returning from his working place.

All of the above fatalities were fully investigated by the inspectors, and from evidence given at the inquests they appear to have been purely accidental.

The fatal accident due to suffocation was the result of a fire on December 12th, which started from some unknown cause in the main intake airway of the Alberta Railway & Irrigation Company's No. 3 mine. In this case the stable boss, Fred Berresford, while endeavouring to reach the stables and save the horses, which were located some 2,000 feet away from the seat of the fire, was overcome by noxious gases and smoke.

The two fatal accidents caused by mine cars occurred in the mine of the Canadian Coal Consolidated Co., Ltd., by parties being caught against chutes while riding on mine cars, in contravention of the special rules and a notice which was then posted at the mine. Had the special rules and notice been observed by the persons for whose guidance they were posted, these accidents would not have occurred, but the most explicit instructions are ineffective at times, and in view of this the inspectors have taken steps to remove this danger as far as possible by requiring such changes in the construction of chutes as local conditions will permit.

Compared with 1908, the number of fatal accidents shows a decrease of two, and the number of non-fatal accidents an increase of seven. However, the production of coal has increased proportionately, so that the average number of tons of coal mined per non-fatal accident remains approximately the same.

TABULATED LIST OF ACCIDENTS ABOVE AND BELOW GROUND

CAUSE	FATAL		SERIOUS		SLIGHT		TOTAL
	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW	
Fall of roof and sides		3		14		4	21
Gas Explosions				1		6	7
Explosives				1		3	4
Mine cars		2	6	10	2	2	22
Railway cars in mine yards.	2						2
Falling down chutes.		1		1			2
Cages and shafts				1		1	2
Other causes.		1	5	3			9
	2	7	11	31	2	16	69

The following list indicates the average number of tons of coal mined each year per fatal accident for 10 years ending December 31st, 1908, and includes all fatal accidents in connection with the operation of mines above and below ground. It might be explained that the comparison from 1899 to 1905, inclusive, is taken from the reports of the Government of the North-West Territories, which included the present provinces of Alberta and Saskatchewan, and the comparison for the years 1906 to 1908, inclusive, are for the Province of Alberta only:

NUMBER OF TONS OF COAL MINED PER FATAL ACCIDENT.

<i>Year.</i>	<i>Tons</i>
1899	86,556
1900	22,948
1901	115,549
1902	63,836
1903	103,823
1904	130,488
1905	67,756
1906	138,500
1907	96,566
1908	167,727

From the above list it will be seen that conditions with regard to fatal accidents are gradually improving, as the figures show the average number of tons of coal mined per fatal accident for the period of 10 years ending Dec 31st, 1908, is 99.375, while the period of 5 years 1899 to 1903, inclusive, shows an average of 78,542 tons mined per fatal accident, and the period of 5 years, 1904 to 1908, inclusive, shows an average of 120,207 tons, which is an increase over the five years 1899 to 1903 of 41,665 tons. The records for the years 1908 and 1909 were much more satisfactory, there being an average of 167,727 tons mined per fatal accident for the year 1908, or an increase of 29,227 tons over the highest previous year, and an average of 241,592 tons for the year 1909, or an increase of 73,865 tons over that of 1908.

During the year 1907 there were 24 accidents, including fatal, serious and slight, due to explosions of gas and powder and in 1908 there were 14 accidents due to the above causes, while the year 1909 shows but 10 accidents due to these causes. The decrease in the number of fatal accidents for the past two years is largely due to the installation of safety lamps and the use of permitted explosives. From our records on file it is quite evident that all of our most serious accidents which have each resulted in a number of deaths in previous years have had their origin in the flame of an open light or by the improper use of explosives, and it would appear that in order to avoid serious accidents the most effective remedies are the installation of modern and securely locked safety lamps, permitted explosives, and the careful supervision of shot-firing, in all mines where gas is given off or where dust is present in dangerous quantities.

SCHEDULE OF ACCIDENTS in Coal Mines during 1909
(Above and Below Ground)

MINE AND LOCATION	RESULTING FATALLY	SERIOUS INJURY	SLIGHT INJURY	TOTAL OF ACCIDENTS
International Coal & Coke Co., Ltd., Coleman	1	9	3	13
Alberta Railway & Irrigation Co., Ltd., Lethbridge	1	5	3	9
Canada West Coal Co., Ltd., Taber	1	4	2	7
Bankhead Mines, Ltd., Bankhead	1	4	1	6
Canadian Coal Consolidated, Ltd., Frank	3	1	1	5
Royal Collieries, Ltd., Royal View		4	1	5
West Canadian Collieries, Ltd., Bellevue Mine	1	2	1	4
West Canadian Collieries, Ltd., Lille Mine		2		2
Twin City Coal Co., Ltd., Stratheona			3	3
H. W. McNeill Co., Ltd., Canmore		3		3
Ansley-Pruitt Coal Mining & Manufac- turing Co., Medicine Hat		1	1	2
Leitch Collieries, Ltd., Passburg	1	1		2
Stratheona Coal Co., Stratheona.		2		2
Pincher Creek Coal Mining Co., Ltd., Pincher Creek			1	1
Cardiff Coal Co., Ltd., Cardiff		1		1
Great Western Coal Co., Ltd., Taber		1		1
Clover Bar Coal Co., Ltd., Edmonton			1	1
Diamond Coal Co., Ltd., Diamond City		1		1
McGillivray Creek Coal & Coke Co., Ltd., Coleman		1		1
Total	9	42	18	69

A detailed list of accidents as reported during the year is appended:

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
Jan. 4	West Canadian Collieries, Ltd., (Bellevue Mine)	Jas Holmes	15	Slate packer	Scalp wound. Jammed by mine cars
Jan. 14	West Canadian Collieries, Ltd., (Bellevue Mine)	David Walker	32	Switchman and brakeman	Killed by being caught between engine and loaded car in mine yard
Jan. 16	Bankhead Mines, Ltd., Bankhead	E. N. Anhoury	38	Labourer	Leg crushed between bumpers of two mine cars
Jan. 19	Bankhead Mines, Ltd., Bankhead	L. Koscielniak	46	Box car handler	Killed by being caught between bumpers of two cars in mine yard.
Jan. 25	Canada West Coal Co., Ltd., Taber	Jno Petrie	18	Trapper	Leg and ankle badly bruised by being struck by motor while Petrie lying asleep with leg across rail
Jan. 28	Bankhead Mines, Ltd., Bankhead	Amie Dofay	25	Miner	Knee cap broken by fall of coal.
Jan. 28	International Coal & Coke Co., Ltd., Coleman	Victor Wilmans	39	Miner	Arm, thigh and leg injured by falling of rock and coal.
Jan. 20	International Coal & Coke Co., Ltd., Coleman	Francois Cambria	29	Miner	Slipped while pulling prop out of cross-cut. Prop fell on him, fracturing rib
Feb. 2	Twin City Coal Co., Ltd., Strathcona	Chas. Splistead.		Tippelman	Trying to overturn car of rock on tippie with wooden lever. Raised it part way and let it come back. In doing so lever caught him across abdomen and severely strained him
Feb. 2	Bankhead Mines, Ltd., Bankhead	Frank Kusner	42	Loader	Fell into chute and carried down same about 30 feet, breaking his leg
Jan. 31	International Coal & Coke Co., Ltd., Coleman	Allen Bunk	38	Timber packer	Scalp wound caused by fall of rock from roof.
Feb. 1	International Coal & Coke Co., Ltd., Coleman	Louis Petlark	38	Chute loader	Leg hurt between knee and ankle by fall of coal
Feb. 5	International Coal & Coke Co., Ltd., Coleman	Mike Romano	16	Trapper	Did not get door opened far enough back. Dinkey engine struck door and door struck Romano, breaking leg

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
Feb. 5	International Coal & Coke Co., Ltd., Coleman	W. A. Clegg	27	Chute loader	Slipped and fell in front of two loaded cars, breaking two ribs and injuring back.
Feb. 24	International Coal & Coke Co., Ltd., Coleman	G. P. Barnes	23	Larryman	Leg injured. Caught between two
Mar. 11	Alberta Railway & Irrigation Co., Ltd., Lethbridge	Geo. Sokro	19	Gripper	Left thigh broken. Taking grip off, failed to clear himself and was struck by cars.
Mar. 14	Alberta Railway & Irrigation Co., Ltd., Lethbridge	D. Leon	34	Coal loader	Slightly burned on hands and face by gas.
May 15	H. W. McNeill Co., Ltd., Canmore	L. Trono	28	Fireman	Burned by explosion of gas.
May 20	Pincher Creek Coal Mining Co., Ltd., Pincher Creek	Alec. McLeod	30	Miner	Slightly burned by gas
June 11	Twin City Coal Co., Ltd., Strathcona	Thos. Smith	35	Miner	Slightly burned by gas
June 11	Twin City Coal Co., Ltd., Strathcona	Chas. Bunyan	28	Miner	Slightly burned by gas
June 16	Canadian Coal Consolidated Co., Ltd., Frank	Thos. P. Kidd	21	Loader and spragger	Jumped on loaded trip. Collided with chute (rushed around region of heart, causing death.
June 19	Canadian Coal Consolidated Co., Ltd., Frank	A. Labonne	32	Miner	Slightly burned by gas
June 4	Arsley-Pruitt Coal Mining & Mfg. Co., Medicine Hat	Chas. Harris	38	Miner	Hit by runaway car on incline. Cut on head.
June 4	Arsley-Pruitt Coal Mining & Mfg. Co., Medicine Hat	Jno. Bulko	23	Miner	Hit by runaway car on incline. Shoulder dislocated.
July 2	Cardiff Coal Co., Ltd., Cardiff	Jno. Esplin	42	Miner	Cut on head and shoulder bruised by falling coal.
July 5	Alberta Railway & Irrigation Co., Ltd., Lethbridge	A. R. McDonald	25	Loader	Went back on shot. Shot went off, injuring his face and body.
July 9	International Coal & Coke Co., Ltd., Coleman	Mike Metlak	27	Chute loader	Caught between chute and car. Back and hip injured.
July 29	West Canadian Celleries, Ltd., (Bellevue Mine)	J. Kosmar	21	Driver	Crushed between horse and car. Rib broken.
Aug. 3	H. W. McNeill Co., Ltd., Canmore	T. Wojekeski	28	Tracklayer's helper	Setting prop when piece of rock fell on him, breaking his leg.
Aug. 5	International Coal & Coke Co., Ltd., Coleman	Jos. Emmerson	29	Miner	Fatally injured by fall of roof.

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
Aug 5	International Coal & Coke Co., Ltd., Cleman	H. Alonen	39	Miner	Back injured by fall of roof
Aug 5	International Coal & Coke Co., Ltd., Cleman	O. Soronen	38	Miner	Scalp wound caused by fall of roof
Aug 9	International Coal & Coke Co., Ltd., Cleman	J. Oldamek	29	Miner	Thigh, knee and leg injured by fall of rock.
Aug 12	Royal Collieries, Ltd., Royal View	Geo. Fear	32	Miner	Hit in eye by piece of steel or rock, causing loss of sight in eye.
Aug 13	Alberta Railway & Irrigation Co., Ltd., Lethbridge	J. Jola		Labourer	Fell off scaffold at power house, No. 6 shaft. Body bruised, head cut.
Aug 21	Alberta Railway & Irrigation Co., Ltd., Lethbridge	S. Voytko	23	Machine runner	Slightly burned on face by gas.
Aug 25	Canada West Coal Co., Ltd., Taber	Chas. Ramsay	42	Rock miner	Squeezed and cut by fall of roof rock.
Aug 26	Great Western Coal Co., Ltd., Taber	B. Dezryakowsky	33	Miner	Thigh broken by fall of roof.
Aug 29	Lower Ear Coal Co., Ltd., Edmonton	E. Nelson	26	Miner	Friction brake on cage in which he was descending slipped and cage dropped 40 feet. Nelson severely bruised.
Aug 30	Letch Collieries, Ltd., Passburg	N. Sadyz	20	Driver	Side and chest bruised. Riding on front of trip, was struck by chute.
Sept 4	Royal Collieries, Ltd., Royal View	Wm. Rowbotham	29	Timberman	Fellow workman accidentally hit him on face with axe while putting in timber, breaking his nose.
Sept 13	Canada West Coal Co., Ltd., Taber	M. Nykelychuck	21	Loader	Killed by fall of rock from roof.
Sept 16	Alberta Railway & Irrigation Co., Ltd., Lethbridge	S. Arasaki	26	Coal leader	Went back on shot. Cut about face and head.
Sept 21	West Canadian Collieries, Ltd., (Lille Mine)	F. Amerato	30	Driver	Hips bruised. Crushed between chute and car.
Sept 25	Bankhead Mines, Ltd., Pankhead	Paul Cemel	47	Backhand	Ankle injured by fall of roof rock.
Sept 29	International Coal & Coke Co., Ltd., Cleman	Martin Bowman	28	Larryman	Leg broken. Struck by runaway rock car.
Oct. 1	Canadian Coal Consolidated Co., Ltd., Frank	Jno. Ewask	23	Timberman	Caught and crushed between car and chute. Died Oct. 2nd.
Oct. 1	Canadian Coal Consolidated Co., Ltd., Frank	Jno. Anderson	38	Miner	Bruised on head and ankles by fall of rock.
Oct. 7	West Canadian Collieries, Ltd. (Bellevue Mine)	H. Lattika	23	Miner	Leg broken by fall of rock.

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
Oct. 7	Royal Collieries, Ltd., Royal View	Billy Balaaz	30	Tippleman	While pushing car to dump, fell into rock dump and was crushed by car.
Oct. 9	Alberta Railway & Irrigation Co., Ltd., Lethbridge	J. A. Forst	22	Labourer	Thread of lifting bolt stripped and let shaft box cap fall on his hand. One finger cut off, two fingers injured and slightly cut on face.
Oct. 19	West Canadian Collieries, Ltd. (Lalle Mine)	M. Moxin	19	Engineer	Clothes caught in shaft in washery. Moxin thrown over shaft, breaking his arm
Oct. 22	Canada West Coal Co., Ltd., Taber	P. Ryan	22	Miner	Went back on shot. Right hand slightly bruised.
Oct. 22	Canada West Coal Co., Ltd., Taber	H. Gregory	43	Miner	Went back on shot. Right arm bruised and face scorched.
Oct. 21	Strathcona Coal Co., Strathcona	W. McKee	26	Miner	Face cut and back strained by fall of roof
Nov. 4	Canada West Coal Co., Ltd., Taber	A. Graboski	17	Pick boy	Leg broken (caught between corner of machine board and rib)
Nov. 10	Canada West Coal Co., Ltd., Taber	S. Sowchuck	26	Miner	Foot broken by piece of rock falling on it.
Nov. 15	Strathcona Coal Co., Strathcona	E. Poole	42	Miner	Leg broken by fall of roof
Nov. 23	Alberta Railway & Irrigation Co., Ltd., Lethbridge	C. Donaldson	31	Pumpman	Spine injured (age dropped owing to engineer losing control of engine, due to water in cylinders)
Dec. 2	H. W. McNeill Co., Ltd., Canmore	W. W. York	26	Engineer	(Caught between car and timber. Col-lar bone broken and two ribs dis-located.)
Nov. 22	Letch Collieries, Ltd., Passburg	Jos. Thez	29	Miner	Killed by falling down manway.
Nov. 30	Diamond Coal Co., Ltd., Diamond City	Jos. Ashcroft	37	Loader & timberman	Leg broken by fall of rock.
Dec. 12	Alberta Railway & Irrigation Co., Ltd., Lethbridge	F. Berresford	41	Stable boss	Suffocated by noxious gases from mine fire
Dec. 13	Canadian Coal Consolidated Co., Ltd., Frank	Jno. Psetak	29	Miner	(Covered by fall of coal and suffocated)
Dec. 9	Royal Collieries, Ltd., Royal View	Thos. Mossey	27	Miner	(Crushed between two mine cars.)

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
Dec 19	Bankhead Mines, Ltd., Bankhead	Metrio McHaleon	20	Switchman	Caught between motor and door Base of skull fractured.
Dec 19	Royal Collieries, Ltd., Royal View	Jno Bordnock	22	Driver	Slipped and got foot caught in wheel of car Dragged about 20 feet
Dec 29	McGillivray Creek Coal & Coke Co., Ltd., Coleman	H N Stearns	23	Engineer	While removing sack from wire hoisting rope, fingers caught and crushed between rope and drum of engine

EXAMINATIONS

An examination for fire boss certificates was held at Banff and Frank on June 2nd, at which eighteen candidates presented themselves for examination, eleven of whom passed, and the regular examination for mine managers, pit bosses and fire bosses was held at Banff, Frank and Edmonton on November 3rd, 4th and 5th. At the latter examination eighty-six candidates sat for examination, fifty-eight of whom passed, as follows: Managers, 27 sat for examination, 16 passed; Pit Bosses, 27 sat for examination, 20 passed; Fire Bosses, 32 sat for examination, 22 passed

In previous years the custom has been that the fire boss examination occupied one day and the pit boss and mine managers examination two days. In connection with the November examination, however, the time occupied by the mine managers' examination was extended to three days, in order to more thoroughly cover the wide range of general mining subjects necessarily included in this class of examination

The number of candidates who presented themselves for examination during 1909 shows a considerable increase over previous years, and with the steadily increasing number of mine officials qualifying each year, the operators should soon have no difficulty in securing certificated men to fill all official positions at the mines. A number of provisional certificates have been issued during the year, but the number of certificates of this class issued each year is gradually decreasing

The following are the questions set at the examinations held at Banff, Frank and Edmonton on November 3rd, 4th and 5th, 1909:

MINE MANAGER EXAMINATION.

Paper No 1.

Time allowed, one and one-half hours.

The value attached to each question is given in parenthesis. Candidates must obtain 70 per cent. of the allotted marks to pass

COAL MINES ACT.

- 1 What is the interpretation of "mine" as laid down by The Coal Mines Act? (10)
- 2 What are the provisions of The Coal Mines Act with reference to register of employees? (10)
3. What are the provisions of The Coal Mines Act with reference to the employment of boys in or about the mine? (10)
4. What are the provisions of The Coal Mines Act with reference to the reporting of accidents? (15)
5. What are the requirements of the Act with regard to keeping a mine plan? (15)
- 6 Name the different registers and report books to be kept at the mine under The Coal Mines Act, 1906, and The Coal Mines Act, 1908 (20)
7. What are the requirements of the Act regarding ambulances, etc ? (10)
- 8 What does The Coal Mines Act state regarding the inspection of machinery? (10)

MINE MANAGER EXAMINATION.

*Paper No. 2.**Time allotted, two and one-half hours.*

The value attached to each question is given in parenthesis. Candidates must obtain 70 per cent. of the allotted marks to pass

GASES AND SHOT-FIRING.

- 1 Give the names, composition, specific gravity and chemical symbol of each of the four different gases commonly found in coal mines (15)
2. Where are the gases mentioned in Question No. 1 found, and how are they produced? (10)
3. What noxious gases are produced by fires and explosions of firedamp in mines? (10)
4. Name six essential features of a good safety lamp for general work. (10)
- 5 What principles are involved in the construction of a safety lamp that would render one lamp more sensitive in the detection of gas than another? (10)
- 6 What instructions would you give in reference to the care and preparation of safety lamps before giving them to the workmen, and how would you instruct the workmen as to their use? (15)
- 7 Explain the proper method of thawing dynamite cartridges. (10)
- 8 What are the dangers arising from the use of powder in dry and dusty mines, and how would you guard against them? (10)
- 9 Do you think coal dust will explode without the presence of inflammable gas; if so what would you do to prevent such an explosion? (10)

MINE MANAGER EXAMINATION.

*Paper No. 3.**Time allowed, three and one-half hours.*

The value attached to each question is given in parenthesis. Candidates must obtain 70 per cent. of the allotted marks to pass.

*VENTILATION**Coefficient of Friction .00000002*

- 1 Define the terms motive column, regulator, coefficient of friction, ventilating pressure (10)
2. Explain the principal features to be considered when contemplating the erection of a ventilating fan. (10)
3. What are the advantages of frequent splitting of the air current, and when is the limit in the number of separate ventilating sections reached? (10)
4. Find the rubbing surfaces of three airways each 6,000 feet long and all of the same sectional area, namely, 75 square feet. The forms of the three sections are as follows: The first, A, is rectangular, and is 5 feet high and 15 feet wide; the second, B, is square; and the third, C, is circular. (15)

5 (a) Determine the length of the motive column when the temperature of the downcast is 50 deg F, and that of the upcast 130 deg F, the depth of each shaft being 300 feet (b) If the barometer reading in each is 29 inches, what is the pressure producing ventilation? (10)

6 If, with a water gauge of 1 inch, 40,000 cubic feet of air are obtained in an airway 10,000 feet long, what should be the water gauge when the length of the airway is extended to 20,000 feet, all other things being the same? (10)

7 If it is necessary to double the amount of air in a mine, how should the pressure and power be increased, respectively? (10)

8 What power will be required to give a current of 60,000 cubic feet of air per minute in a mine having four equal splits, the airway in each split being 6 feet by 8 feet by 5,000 feet? (10)

9 To find the percentage of mine gases given off by a mine the air at the inlet was measured and found to be 137,500 cubic feet per minute at a temperature of 61 deg F, the air at the outlet measured 150,200 cubic feet per minute at a temperature of 76 deg F, what is the percentage of mine gases present in the air leaving the mine? (15)

MINE MANAGER EXAMINATION

Paper No 4

Time allowed, three and one-half hours

The value attached to each question is given in parenthesis. Candidates must obtain 60 per cent of the allotted marks to pass

PRACTICAL WORK

1. If you had a number of men in a certain district and fire was to take place in an intake airway, state how you would proceed to rescue the men? (10)

2 If you were in charge of a gaseous mine and an explosion should occur during working hours: (a) What would be your first action? (b) Describe in detail how you would proceed into the mine to recover dead bodies or rescue persons still living (10)

3 Make a sketch showing how you would construct an overcast. (10)

4 What useful purpose do overcasts and undercasts serve in mine ventilation, and which kind would you approve and why? (10)

5. Show by sketch how you would divide a shaft you were sinking into the various necessary compartments, one compartment to be used for water, air pipes, and ventilation until connection with the escapement shaft is made Answer fully (10)

6 In developing a flat seam of coal, opened up by a shaft, and which is giving off a large quantity of explosive gas, how should the mine be planned in regard to ventilation and haulage so as to insure the greatest degree of safety to the employees? (15)

7. How do mine fires originate, and what precautions are necessary to prevent them? (10)

8. Give your reasons why different methods of mining are used and why one method will not answer for all mines. (10)

9 Describe by sketch some of the methods used in working incline seams. (15)

MINE MANAGER EXAMINATION.

*Paper No. 5**Time allowed, three and one-half hours.*

The value attached to each question is given in parenthesis. Candidates must obtain 60 per cent. of the allotted marks to pass.

MACHINERY

1. What is a unit of work and how many are there in a horsepower? (5)
2. What care should be taken of steam boilers to secure the best results from their use? (10)
3. How may radiation from boiler pipes and engine cylinders be prevented? (10)
4. What is mean effective pressure? (5)
5. The diameter of the piston of an engine is 10 inches and the length of stroke is 15 inches. The engine makes 250 revolutions per minute with a mean effective pressure of 40 pounds per square inch. What is the horsepower of the engine? (10)
6. At a shaft 200 feet deep, there is a sump 250 feet long, 20 feet wide and 6 feet deep. If this sump fills in three hours time, find the horsepower of the pump that should be installed to handle the water. (10)
7. A 300 horsepower engine has a cylinder 22 inches in diameter, and a stroke of 18 inches. When making 200 revolutions per minute, what must be the mean effective pressure (M E P.)? (10)
8. What weight will a double cylinder engine of the following dimensions lift (allowing one cylinder to overcome friction): Diameter of cylinder 10 inches; length of stroke 15 inches; average steam pressure on pistons, 40 pounds per square inch; engine shaft geared 5 to 1 on drum; diameter of drum 5 feet? (10)
9. To what use is electricity applied in a coal mine? What are the names of the four electrical units in common use and explain their meaning. (10)
10. What in your opinion constitutes an efficient and safe hoisting appliance for a coal mine? Describe in detail from the foundation of the engine to the delivery of the carriage at the tippie. (10)
11. What classes of air compressors are best adapted to operate haulage locomotives? Give reasons. (5)
12. Using compressed air at 60 pounds gauge pressure, if there is required 1,100 cubic feet of free air for the operation of twenty-five 2-inch drills at sea level what quantity of free air would be required for the same work at an elevation of 5,000 feet above sea level where the barometer reads 25 inches? (5)

MINE MANAGER EXAMINATION

*Paper No. 6.**Time Allowed, Three Hours.*

The value attached to each question is given in parenthesis. Candidates must obtain 60 per cent. of the allotted marks to pass.

LEVELLING.

1. Describe a levelling rod and its use. (15)
2. Describe an engineer's level and its use. (15)

3 Fill in the following level notes, showing the height of instrument and the elevation of each station Stations are 100 feet apart (20)

Station	B S	H I	I S	F S	Elevation	Grade	Remarks
0 B M	7 50 ft				20 00 ft		
1			5 00 ft				
2			2 50 ft				
3			2 00 ft				
4 T P				1 50 ft			
5	8 00 ft		7 50 ft				
6			6 00 ft				
7			4 00 ft				
8			2 00 ft				
9			2 50 ft				
10			1 00 ft				
11			6 00 ft.				
12			4 50 ft				
13			3 50 ft				
14			2 00 ft				
15 T P				0 00 ft			
16	7 50 ft		8 50 ft				
17			7 00 ft				
18			4 00 ft				
19				2 50 ft			

4. Draw a profile from the above notes, using a scale of 10 feet to the inch for heights and a scale of 100 feet to the inch for horizontal distances Mark on the profile the number and elevation of each station (20)
- 5 What is the average grade from Station 0 to Station 19? Show grade by line drawn on profile (15)
6. How would you determine whether your instrument was in proper adjustment? (15)

MINE MANAGER EXAMINATION

Paper No 7 Time allowed, three and one-half hours

The value attached to each question is given in parenthesis Candidates must obtain 60 per cent of the allotted marks to pass

SURVEYING AND MAPPING

- 1 On starting to make a survey underground, what instruments, tools and materials are used? State fully how you would proceed to make an underground survey. (10)
- 2 Why are stations invariably placed in the roof? (10)
- 3 In setting up a transit, how do you determine the exact place to set the instrument when the point is in the roof? (10)
4. In starting from a true base line OON you turn an angle to the right 23 degrees 15 min. What is the bearing of this course? On the next station you turn an angle to the right of 87 deg 10 min. What is the bearing of this course? Is there any way by which these bearings can be checked? (10)

5 A distance measured on a pitch of 35 deg is 150 feet What is the horizontal distance? (10)

6 Plot the following survey, reducing angles to corresponding bearings This survey commences at Station O on an established base line which is true north and south, and the readings are as follows: (10)

Station 0-1	Right	31 degrees 15 minutes	Distance 590 ft.
Station 1-2	Right	1 degree 38 minutes	Distance 505 ft
Station 2 3	Right	127 degrees 04 minutes.	Distance 190 ft.
Station 3 4	Right	61 degrees 29 minutes	Distance 102 ft.
Station 4-5	Left	1 degree 58 minutes.	Distance 190 ft.
Station 5-6	Left	5 degrees 25 minutes	Distance 600 ft
Station 6-0			

7 Calculate by sines and cosines the bearing and distance from Station 6 to Station 0 (10)

8 How would you plot the mine workings of a pitching seam on a plan to be used by the pit boss Give your reasons for such (10)

9 What is the deflection of the needle in this locality? Why is the needle weighted? (10)

10 Why is it advisable to make a contour map before planning the development of a mine? (10)

PIT BOSS EXAMINATION

Paper No 1

Time allowed, one and one-half hours

The value attached to each question is given in parenthesis. Candidates must obtain 60 per cent of the allotted marks to pass

COAL MINES ACT.

1 What is the interpretation of "pit boss" as laid down by The Coal Mines Act? (5)

2. What are the provisions of The Coal Mines Act regarding an adequate amount of ventilation in a mine? (10)

3 (a) How often does the Act require the air current to be measured? (b) By whom measured? (c) When must the air reports be sent to the office of the Mine Inspector? (10)

4 What does The Coal Mines Act state with regard to the withdrawal of workmen in case of danger? (15)

5 State what dangers are met in approaching old abandoned workings and what precautions are necessary under The Coal Mines Act. (15)

6 What does The Coal Mines Act state about signals and manholes on underground planes which are self-acting or worked by machinery? (10)

7 What are the requirements of The Coal Mines Act regarding manholes on travelling roads where the produce of the mine exceeds 10 tons in one hour? (10)

8 What does The Coal Mines Act state about a person having charge of machinery in a mine where persons are lowered and raised by such machinery? (10)

9 What does The Coal Mines Act state regarding a supply of suitable timber? (10)

10. What are the requirements of the Act regarding the fencing of machinery? (5)

PIT BOSS EXAMINATION

Paper No. 2.

Time allowed two and one-half hours.

The value attached to each question is given in parenthesis. Candidates must obtain 60 per cent of the allotted marks to pass.

VENTILATION

1. Name the gases met with in mines, giving, also, the symbol and specific gravity of the same (10)
2. What proportions of atmospheric air and carburetted hydrogen are necessary to form a highly explosive mixture? (10)
3. What are the most common causes of ignition of gases in coal mines? (10)
4. The ventilating fan of a mine is of ample capacity but the ventilation at the face of the workings is insufficient. What would be the probable cause of the fan's inefficiency in producing sufficient air at the face of the workings? How would you proceed to overcome the difficulties or defects? Explain fully (10)
5. A rectangular airway is 6 feet high, 12 feet wide, and 2,500 feet long: what is the rubbing surface in square feet? (10)
6. Which is the more effective, the exhaust or forcing fan? Give your reasons (5)
7. In a gangway having a 7 foot collar, 12 foot spread, and 7 feet high, what is the area and what quantity of air is passing when the velocity is 375 feet per minute? (10)
8. The velocity of the air passing in a circular shaft 8 feet in diameter is 300 feet per minute: what is the quantity of air passing per minute? (10)
9. The water gauge is 1.5 inches, the quantity of air in circulation is 85,000 cubic feet per minute; find the horse power in the air. (10)
10. Explain the principle discovered by Sir Humphrey Davy and embodied in the safety lamp. What is the standard size of wire gauze used in the Davy Lamp? (5)
11. What instructions would you give in reference to the care and preparation of safety lamps before giving them out to the workmen and how would you instruct the workmen as to their use? (10)

PIT BOSS EXAMINATION

Paper No. 3

Time allowed, three and one-half hours

The value attached to each question is given in parenthesis. Candidates must obtain 50 per cent of the allotted marks to pass

PRACTICAL WORK.

1. When would you consider that the coal in a seam is properly mined where blasting the coal is necessary? State your views fully (10)

2. When the fire boss reports in the record book certain dangers that he has discovered during his examination, what would be your duty as pit boss? (5)

3. Assuming that falls of roof, slate, coal and sides are the cause of the greatest number of accidents in mines, what precautionary measures would you adopt as a pit boss to reduce their number? (10)

4. An entry is rising at the rate of 7 feet in 100 feet and the ventilating current of air is flowing up the grade where you are compelled to place a door on the pitch of said entry near its entrance, and the height of the door is equal to the height of the entry; explain how you would prepare the place so the door would close by gravity and show by sketch how door is placed (10)

5. Make a sketch of an overcast (10)

6. Show by sketch how you would timber a roadway having a bad roof and sides, also soft fireclay bottom that heaves. (10)

7. What method is the safest for using dynamite in sinking a shaft and what will give the least danger to life or limb? Explain fully (5)

8. Describe a creep, its effect, and the precautions necessary to prevent and check it (10)

9. A dam in a tunnel supports a vertical head of 80 feet of water; the sectional area of the tunnel is 70 square feet. Find the total pressure on the dam. (5)

10. Do you consider coal dust an element of danger in a non-gaseous mine? If you found much dust in the mine what precautions would you adopt to prevent any danger to life and destruction of property that might occur from its presence while mining operations were being carried on? (10)

11. What are the causes that lead to mine fires, not taking into consideration spontaneous combustion, and how would you guard against them? In dealing with mine fires what dangers are likely to arise to life provided care is not exercised by the persons dealing with them, and what precautionary measures should be adopted to insure safety? (5)

12. Explain in detail the causes of accumulations of fire damp, and the probable effects of allowing such accumulations to exist in a mine. What precautions should be taken to avoid such accumulations of gas? (10)

PIT BOSS EXAMINATION

Paper No. 4

Time allowed, three and one-half hours.

The value attached to each question is given in parenthesis. Candidates must obtain 50 per cent. of the allotted marks to pass

MACHINERY.

1. What is the principle of the siphon and to what height can it be applied to raise water? How would you start the flow in a siphon? (10)

2. What is it that causes a pump to raise water through a suction pipe 20 or 25 feet? (10)

3. For what purpose are bearings bushed? What metals are generally used and why? (5)

4. What is a unit of work and how many are there in a horsepower? (10)
5. What is the horsepower of an engine with cylinder 20 inches in diameter, length of stroke 30 inches, making 50 revolutions per minute, with an average steam pressure of 30 pounds per square inch? (10)
6. State the method you would employ in making an examination of the rope, cage, and safety catches in use at a coal mine. (10)
7. In laying out a siding or main parting where mechanical haulage is in use, what are the chief points to be considered with reference to safety, economy, and the speedy handling of the coal? (10)
8. Give a sketch showing various forms of rope capping. Which form would you prefer and why? (10)
9. Name the different kinds of safety valves and give the characteristics of each. (5)
10. If the diameter of the water cylinder of a pump is 10 inches and the discharge column is 150 feet in height, what would be the total pressure in pounds on the piston, disregarding friction? (10)
11. A pipe running full of water is one foot in diameter and is leading from the mine to a surface opening that is draining said mine of its water; the velocity of the water in the pipe is 4 feet per second, how many gallons of water would be discharged therefrom in one minute? (10)

PIT BOSS EXAMINATION

Paper No 5

Time allowed, three and one-half hours.

The value attached to each question is given in parenthesis. Candidates must obtain 50 per cent of the allotted marks to pass

SURVEYING.

1. Give the order of the letters on the face of a compass and the reason for such arrangement. (15)
2. What is meant by the declination of the needle? (10)
3. What is the most suitable and accurate instrument for measuring distances? (10)
4. Where are stations in mine surveying generally placed and why are they so placed? (10)
5. In setting up a compass, how do you determine the exact place to set the instrument when the station is placed in the roof? (15)
6. Plot the following compass survey to a scale of 100 feet to the inch:

Stations 1-2 N	15 degrees, E	220 ft	
Stations 2-3 N	40 degrees, E	160 ft.	
Stations 3-4 S.	12½ degrees, E	300 ft	
Stations 4-5 S.	50 degrees, W	140 ft.	(20)
7. Find the bearing and length of the closing line from Station 5 to Station 1. (10)
8. How often should a mine be surveyed and mine plan brought up to date? (10)

FIRE BOSS EXAMINATION.

*Paper No. 1.**Time allowed, one and one-half hours.*

The value attached to each question is given in parenthesis. Candidates must obtain 60 per cent of the allotted marks to pass

COAL MINES ACT.

- 1 What is the interpretation of "fire boss" as laid down by The Coal Mines Act? (10)
- 2 What is the interpretation of "shotlighter" as laid down by The Coal Mines Act? (10)
- 3 Give a detailed account of the duties of a fire boss from the time he reaches the mine at the beginning of his shift until he leaves at the end of his shift (20)
- 4 What does The Coal Mines Act state with reference to places not in the actual course of working? (10)
- 5 State fully the provisions of General Rule 8 regarding the use of any explosive in the mine? (20)
- 6 State the provisions of General Rule 7 regarding the use of safety lamps, also state under what conditions the use of safety lamps is required. (20)
- 7 What does The Coal Mines Act state regarding the appointing of stations at the mine? (10)

FIRE BOSS EXAMINATION.

*Paper No. 2.**Time allowed, two and one-half hours.*

The value attached to each question is given in parenthesis. Candidates must obtain 60 per cent of the allotted marks to pass.

VENTILATION.

- 1 Name the different gases found in mines Which are explosive and which non-explosive? State where you would look for them and how they are detected (10)
- 2 If an explosion of gas occurred in your safety lamp, what would you do? (10)
- 3 What are the dangers arising from the improper care and handling of safety lamps by the workmen? (10)
- 4 In case the light in your safety lamp became extinguished while you were making an examination of a gaseous mine, how would you proceed and what provisions would you make for such emergency? (10)
- 5 What care and attention should safety lamps receive in the lamp room and how should lamps be inspected before they are handed over to the workmen for use? (10)
- 6 State the use of the water gauge and where you would apply it. (10)
- 7 What are the advantages of splitting air currents and for what purpose are regulators used? (10)
- 8 What are the anemometer, barometer and thermometer used for in coal mining? (10)

9. In an airway 10 ft 6 in. wide, 4 ft 6 in high, we find the velocity of the air to be 300 feet per minute; what is the area of the airway, and how many cubic feet of air per minute are passing in the airway? (10)

10. Find the number of square feet of rubbing surface in an airway 4 feet high by 9 feet wide and 1,000 feet long. (10)

FIRE BOSS EXAMINATION.

Paper No 3.

Time allowed, two hours.

The value attached to each question is given in parenthesis. Candidates must obtain at least 50 per cent. of the allotted marks to pass

PRACTICAL WORK

1. What, in your opinion, is a miner's first duty on entering his working place in the morning? Who should have preceded him there according to law? (10)

2 Name the precautions you would require a miner to take when about to restand a prop knocked out by flying coal from a blast? (10)

3 Show by sketch how to set props in a level seam (10)

4. How would you set a single post on a pitching seam? (10)

5 State how you would commence to remove a large body of fire damp, and what precautions you would take. State what danger there may be in doing the work (10)

6. State the character of brattices to be used in gaseous mines, and how should they be constructed? (10)

7 What are the principal things to be looked after in haulage roads? (10)

8 What dangers arise from lack of judgment in placing shots in coal mining? (15)

9 What is coal dust? State what dangers arise from the same when blasting is carried on where it is present; also, what you would do to prevent a possible accident due to the presence of coal dust. (15)

FIRE BOSS EXAMINATION

Paper No 4.

Time allowed, one and one-half hours.

The value attached to each question is given in parenthesis. Candidates must obtain 50 per cent of the allotted marks to pass

ARITHMETIC

1. Multiply twenty thousand and seven by eighteen thousand seven hundred and four (15)

2 Add the following numbers together: 768, 9476, 8, 93268, 396, 18, 64538, 9654, 9273642. 7 (15)

3 Divide 9878546 by 298 and work the answer to three decimal places (15)

- 4 From 9350008 subtract 8370109 (10)
 5. The velocity of the air in an airway 7 feet wide by 5 feet high is 750 feet per minute. What is the volume of air passing in the airway in an hour? (15)
 6 From an entry 9 feet 6 inches wide and 5 feet 6 inches high, driven at the rate of $4\frac{1}{2}$ feet per day, how many cubic yards of material are taken out in five days? (15)
 7 A shaft measures 7 feet by 15 feet and is sunk to a depth of 160 feet. How many cubic yards of material were removed in sinking it? What did the work cost at 15 cents per cubic foot? (15)

WAGES.

The scale of wages paid in the province during 1909 was practically the same as that paid during the two previous years. The general wage schedule for day labour is as follows:

Inside Men

Fire bosses	\$85 00 to \$110 00 per month
Shotlighters	\$3 00 to \$3 50 8 hours.
Bratticemen	3 00 8 "
Bratticemen helpers	2 50 8 "
Timbermen	3 00 8 "
Timbermen helpers	2 75 8 "
Drivers	2 75 8 "
Drivers, wet places	3 00 8 "
Team drivers	3 00 8 "
Tracklayers	3 00 8 "
Tracklayers' helpers	2 75 8 "
Rock Miners	3 50 8 "
Miners	3 00 8 "
Miners, wet places	3 50 8 "
Locomotive engineers	3 00 8 "
Switchmen	2 75 8 "
Chute loaders	2 75 8 "
Labourers	2 50 8 "
Timber handlers	2 75 8 "
Machine men	3 50 8 "
Machine men helpers	3 00 8 "
Switch boys	1 50 8 "
Door boys	1 50 8 "
Hoistmen	3 00 8 "
Rope riders	2 75 8 "
Couplers, boys	1 50 8 "
Couplers, men	2 50 8 "
Pushers	2 75 to 3 00 8 "

Outside Men

Pithead men	\$2 50 10 hours.
Dumpers	2 50 10 "
Slate pickers, men	2 00 10 "
Slate pickers, boys	1 25 10 "
Car oilers, boys	1 25 10 "
Car oilers, men	2 00 10 "
Tally boys	1 25 10 "
Teamsters	2 50 10 "
Blacksmiths	3 50 10 "
Blacksmiths' helpers	2 50 10 "
Mine carpenter	3 50 10 "
Mine carpenter helper	2 50 10 "
Car repairers	3 00 10 "
Power house engineers	3 50 12 "
Tipple engineers	3 25 10 "
Locomotive engineers	3 25 10 "
Locomotive engineers' helpers	2 80 10 "
Firemen	2 50 8 "

R. R. car handlers	\$2 40	10 hours
Fanmen	2 50	12 "
Outside labourers	2 25	10 "
Fan firemen	3 00	12 "
Lampmen	2 50	12 "
Machinists	3 20	10 "
Machinists' helpers	2 50	10 "
Couplers	2 25	10 "
Sawyer	3 00	10 "

PROSPECT WORK.

The number of new railways which have recently been projected throughout the province has had a tendency to renew the activity in prospecting and locating new coal areas. This is especially the case as regards the bituminous fields.

The coal field in the district lying west of Edmonton has only been partially explored, but several large coal areas have been located, on which a number of seams of good bituminous coal have been prospected and proven.

In the Cascade basin, or in that part of it known as the Kananaskis Valley, the prospect work which was previously well advanced has continued during the year, and according to the report of Mr. D. B. Dowling, of the Dominion Geological Survey, this field contains a large number of easily accessible coal seams which crop out in various places along the sides of the mountains, and when a railway is built into the field a considerable output can be got in a short time.

The large amount of prospecting work which has been carried on south of the Crow's Nest line of railway, in the district known as the South Fork of the Old Man River, has demonstrated that this coal area is equally as large and will eventually be as important as that which is now being worked in the Frank-Coleman field.

West of Lethbridge, along the Macleod-Lethbridge cut-off, a number of bore-holes have been put down by the Lethbridge Collieries, Ltd., which have proven that the coal area known as the Lethbridge coal field extends a considerable distance north and west of the present collieries.

During the past year a number of new mines have been opened throughout the province which are being developed very rapidly and present indications point to a substantial increase in the total output of coal for the year 1910.

I have the honour to be, Sir,

Your obedient servant,

ROBERT LIVINGSTONE,

Provincial Inspector of Mines.

LOCAL IMPROVEMENT BRANCH

EDMONTON, February 15, 1910.

JOHN STOCKS, Esq.,
Deputy Minister of Public Works,
Edmonton

SIR,—I beg to submit herewith the following report for the Local Improvement Branch of the Department of Public Works for the year 1909.

As has been true in past years, the work of this branch has steadily increased. The total amount of taxes and fees collected by this department during the year 1909 from assessments levied under The Local Improvement Act and Educational Tax Act together

with arrears due small local improvement districts, school districts and villages was \$261,383 73

The work which we carry on in connection with the issuing of tax certificates is still on the increase, the total number issued during the year 1909 being 12,465 as compared with 6,192 in 1908. The general correspondence of the branch has also increased a great deal during the past year.

At the end of the year provision was made for foreclosure proceedings to be taken under the provisions of The Local Improvement Act, Village Act, School Assessment Ordinance and Educational Tax Act. Arrangements were made for the necessary courts to be held in the month of April of the current year, and many of the forfeiture notices were issued prior to the end of the year, the balance being issued after the beginning of the year. These proceedings should increase the collections for the year 1910, especially collections made under The Educational Tax Act.

LARGE LOCAL IMPROVEMENT DISTRICTS

The total assessment levied in large local improvement districts in the year 1909 amounted to \$168,299 63 as compared with the total assessed in the year 1908 of \$151,522.11. The total amount collected for taxes and fees in large local improvement districts during the year 1909 was \$261,383 73 as compared with \$248,733 35 in 1908.

SMALL LOCAL IMPROVEMENT DISTRICTS

There were one hundred and eighty-eight small local improvement districts fully organized and carrying on business in the province at the end of the year, fourteen new districts having been organized during the year. In addition to this organization townships 57 and 58, range 21, were organized and added to District 29-R-4

The system of having the books of small local improvement districts audited by auditors sent out by the department is still working out very satisfactorily, and by means of these audits many districts have been assisted in getting their work carried on more in accordance with the provisions of The Local Improvement Act than formerly. Through certain misunderstandings of the Act, also through customs in vogue under the old Local Improvement Act, certain abuses have crept in which are now being done away with. We also find that these audits save money to the districts through checking up their assessment rolls. I might cite one particular instance in the past year in which a district stood to lose at least \$1,500 00 through incomplete assessment which was discovered by one of our auditors.

The great question in regard to small local improvement district work is still the procuring of satisfactory return for the assessment levied, and it is very necessary that the districts should take prompt and immediate action to make arrangements whereby the money of the district can be spent to a greater advantage than has been done in the past.

The fact that we carry a stock of supplies for the work of secretary-treasurers was taken advantage of to a great extent during the past year and it would appear that it has been of great assistance to many of the districts that are not situated close to towns or cities from which they can readily procure authorized books and forms. The sale of these supplies amounted to \$799.60 during the year.

Arrears of taxes outstanding from assessment levied by small local improvement districts were collected by this department to the amount of \$32,459 07 and forwarded to the secretary-treasurers of the districts to which they belonged to be used by the council of the district in connection with their work

The following is a complete list of all small local improvement districts in existence at the end of the year 1909, together with the date of organization, the area of each district, the name of the secretary-treasurer and the rate of assessment which was levied in the past year:

24-A-4—Organized 1908 —Townships 47 and 48 in ranges 1 and 2, west of the fourth meridian Secretary-treasurer, Jno. G Barclay, Rising Sun, Alberta Rate of assessment 1909, \$8 00 per quarter section

25-A-4—Organized 1906.—Townships 49 and 50 in ranges 1 and 2, west of the fourth meridian Secretary-treasurer, A J. Blackwell, Lloydminster, Alberta. Rate of assessment 1909, \$8.00 per quarter section

26-A-4—Organized 1906 —Townships 51 and 52 in ranges 1 and 2, and township 53 in range 2, west of the fourth meridian Secretary-treasurer, Jno. Campbell, Lloydminster, Alberta Rate of assessment 1909, \$6 00 per quarter section

5-B-4 —Organized 1905 —Townships 9 and 10, in ranges 2, 3 and 4, west of the fourth meridian Secretary-treasurer, Wm. Dakin, Irvine, Alberta. Rate of assessment 1909, \$2 80 per quarter section

6-B-4—Organized 1906 —Townships 11 and 12 in ranges 4 and 5, west of the fourth meridian Secretary-treasurer, G Jenkins, Medicine Hat, Alberta Rate of assessment 1909, \$2 40 per quarter section

20-B-4—Organized 1909 —Townships 39 and 40, in ranges 3 and 4, west of the fourth meridian Secretary-treasurer, V O Berggren, Provost, Alberta. Rate of assessment 1909, \$2 00 per quarter section

26-B-4—Organized 1905 —Townships 50, 51 and 52 in ranges 3 and 4, west of the fourth meridian Secretary-treasurer, W Ashworth, Kitscoty, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

27-B-4—Organized 1907 —Township 53 in ranges 3 and 4, township 54 in range 4, south of river of township 54 in range 3, west of the fourth meridian Secretary-treasurer, R F Blair, Dewberry, Alberta Rate of assessment 1909, \$6 00 per quarter section

23-C-4—Organized 1909 —Townships 43 and 44 in range 5, pt township 43, range 6, not included in Buffalo Park, township 44 in range 6 and part 44, range 7, not included in Buffalo Park, west of the fourth meridian Secretary-treasurer, C F. Gibson, Greenshields, Alberta. Rate of assessment 1909, \$3 60 per quarter section.

24-C-4 —Organized 1909 —Township 45 in ranges 5 and 6, pt S and E of river of township 45 in ranges 7 and 8, parts south and east of river township 46, ranges 6 and 7, townships 46 and 47 in range 5, township 47, range 6, west of the fourth meridian Secretary-treasurer, D W Hansen, Wainwright, Alberta Rate of assessment 1909, \$4 00 per quarter section

25-C-4 -Organized 1908 —Portion north of Battle River of townships 47 and 48 in range 5, portion north of Battle river of townships 46 and 47, range 6, townships 48 and 49, range 6, township 49, range 5, west of the fourth meridian Secretary-treasurer, E C Symes, Battle View, Alberta Rate of assessment 1909, \$6 00 per quarter section

26-C-4—Organized 1906 —Townships 50, 51 and 52, in ranges 5 and 6, west of the fourth meridian. Secretary-treasurer, E Covey, Vermilion, Alberta Rate of assessment 1909, \$8 00 per quarter section

27-C-4 -Organized 1909 —Townships 53 and 54 in ranges 5 and 6, west of the fourth meridian Secretary-treasurer, F Lawes, Wellsdale, via Islay, Alberta Rate of assessment 1909, \$8.00 per quarter section

21-D-4 —Organized 1909 —Townships 41 and 42, range 8, portion south and east of river of township 41 in ranges 9 and 10, portion south and east of river of township 42 in ranges 9 and 10, west of the fourth meridian Secretary-treasurer, S. W Oxford, Hardisty, Alberta Rate of assessment 1909, \$6 40 per quarter section.

23-D-4 —Organized 1909 —Portion north of river of townships 45 and 46 in range 7, portion north of river of township 45, range 8, township 46, range 8, west of the fourth meridian Secretary-treasurer, C T Hill, Irman, Alberta Rate of assessment 1909, \$5 60 per quarter section

24-D-4—Organized 1908 —Townships 47 and 48 in ranges 7 and 8 west of the fourth meridian Secretary-treasurer, Harry A Sproule, Orbindale, Alberta Rate of assessment 1909, \$6 00 per quarter section

25-D-4—Organized 1907.—Townships 49 and 50 in ranges 7 and 8, west of the fourth meridian. Secretary-treasurer, J. A. McCallum, Mannville, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

26-D-4—Organized 1906.—Townships 51 and 52, ranges 7 and 8, west of the fourth meridian. Secretary-treasurer, G. M. Cundal, Mannville, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

19-E-4—Organized 1907.—Townships 37 and 38 in ranges 9 and 10, west of the fourth meridian. Secretary-treasurer, R. W. Preston, Talbot, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

20-E-4—Organized 1907.—Township 39 in ranges 9 and 10, and part east of the river of township 40 in ranges 9 and 10, west of the fourth meridian. Secretary-treasurer, D. Munroe, Puffer, Alberta. Rate of assessment 1909, \$7.20 per quarter section.

21-E-4—Organized 1909.—Part north and west of the Battle River of township 40, range 9, part north and west of Battle River of townships 39 and 40, range 10, part west of Battle River of township 41 in ranges 9 and 10, Sections 1, 2, 11, 12, 13, 14, 23, 24, 25, 26, 35 and 36 in township 41, range 11, part west of Battle River of township 42, in ranges 9 and 10, sections 1, 2, 11, 12, 13, 14, 23, 24, 25, 26, 35 and 36 in township 42, range 11, west of the fourth meridian. Secretary-treasurer, D. Williamson, Hardisty, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

25-E-4—Organized 1907.—Townships 49 and 50 in ranges 9 and 10, west of the fourth meridian. Secretary-treasurer, Jas. N. Bryden, Mannville, Alberta. Rate of assessment 1909, \$4 80 per quarter section.

26-E-4—Organized 1906.—Townships 51 and 52 in ranges 9, 10 and 11, west of the fourth meridian. Secretary-treasurer, T. J. Marshall, Delnorte, Alberta. Rate of assessment 1909, \$5 60 per quarter section.

27-E-4—Organized 1909.—Townships 53 and 54 in ranges 9 and 10, west of the fourth meridian. Secretary-treasurer, Hy. D. Middleton, Mannville, Alberta. Rate of assessment 1909, \$6 40 per quarter section.

19-H-4—Organized 1907.—Townships 37 and 38 in ranges 11 and 12 and part south of the river of township 39 in ranges 11 and 12, west of the fourth meridian. Secretary-treasurer, Frank Heffernan, Lindsville, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

20-H-4—Organized 1907.—Part north of Battle River of township 39 in ranges 11 and 12, township 40 in ranges 11 and 12, west of the fourth meridian. Secretary-treasurer, L. K. Cranmer, Flagstaff, Alberta. Rate of assessment 1909, \$6 40 per quarter section.

21-H-4—Organized 1907.—Sections 3 to 10 inclusive, 15 to 22 inclusive, and 27 to 34 inclusive in township 41, range 11, townships 41 and 42 in range 12, sections 3 to 10 inclusive, 15 to 22 inclusive, and 27 to 34 inclusive in township 42, range 11, west of the fourth meridian. Secretary-treasurer, Arch. Brown, Bellshill, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

22-H-4—Organized 1906.—Townships 43 and 44 in ranges 10, 11 and 12, west of the fourth meridian. Secretary-treasurer, Thos. H. White, Loughheed, Alberta. Rate of assessment 1909, \$7 00 per quarter section.

24-H-4—Organized 1905.—Townships 47 and 48 in ranges 11 and 12, west of the fourth meridian. Secretary-treasurer, D. T. Greene, Harland, Alberta. Rate of assessment 1909, \$7 00 per quarter section.

25-H-4—Organized 1905.—Townships 49 and 50 in ranges 11 and 12, west of the fourth meridian. Secretary-treasurer, A. Cartwright, Gilpin, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

27-H-4—Organized 1909.—Townships 53 and 54 in ranges 11 and 12, west of the fourth meridian. Secretary-treasurer, G. L. Smith, Pozerville, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

28-H-4—Organized 1909.—Portion south of Saskatchewan River of township 55 in ranges 11 and 12, part north and east of Saskatchewan River in townships 55 and 56 in range 12, part north of Saskatchewan River in township 55 in range 11, township 56, range 11, part not in Indian Reserve, township 57, range 11, west of the fourth meridian. Secretary-treasurer, L. Napoleon, Des Pins, Brosseau, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

19-J-4—Organized 1907.—Townships 47 and 48 in ranges 11 and 12, west of the fourth meridian. Secretary-treasurer, L. J. Rowe, Ingelton, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

20-J-4—Organized 1907.—Parts south of the river of townships 39 and 40 in range 13, and township 39 in range 14, part south of the river of township 40 in range 14, west of the fourth meridian. Secretary-treasurer, G. L. Rutherford, Ingelton, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

21-J-4—Organized 1907.—Part north of river of townships 39 and 40 in range 13, part north of river of townships 40 and 41, range 14, townships 41 and 42 in range 13, township 42 in range 14, west of the fourth meridian. Secretary-treasurer, W. H. Stewart, Merna, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

22-J-4—Organized 1906.—Townships 43 and 44 in ranges 13 and 14, west of the fourth meridian. Secretary-treasurer, E. H. Malcolm, Killam, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

23-J-4—Organized 1906.—Townships 45 and 46 in ranges 13 and 14, west of the fourth meridian. Secretary-treasurer, W. W. L. Ruzicka, Prague, Alberta. Rate of assessment 1909, \$6 40 per quarter section.

24-J-4—Organized 1906.—Townships 47 and 48 in ranges 13 and 14, west of the fourth meridian. Secretary-treasurer, L. S. Gossman, Harland, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

25-J-4—Organized 1905.—Townships 49 and 50 in ranges 13 and 14, west of the fourth meridian. Secretary-treasurer, Peter Saddaby, Lavoy, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

26-J-4—Organized 1905.—Townships 51 and 52 in ranges 12, 13 and 14, west of the fourth meridian. Secretary-treasurer, H. A. Glaspell, Lavoy, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

27-J-4—Organized 1905.—Townships 53 and 54 in ranges 13 and 14, west of the fourth meridian. Secretary-treasurer, E. H. Wynn-McKenzie, Warwick, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

28-J-4—Organized 1905.—Township 57, range 12; part south and west of the river of township 56, range 12, townships 55 and 56 in range 13, part south of river of township 57 in range 13, townships 55 and 56 in range 14, part south of river of township 57 in range 14, west of the fourth meridian. Secretary-treasurer, C. T. McGowan, Hairy Hill, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

19-M-4—Organized 1906.—Townships 37 and 38 in ranges 15 and 16, west of the fourth meridian. Secretary-treasurer, R. S. Groat, Emsburg, via Stettler, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

20-M-4—Organized 1906.—Township 39 in ranges 15 and 16, parts south of the river of townships 40 in range 15 and 16, west of the fourth meridian. Secretary-treasurer, A. Edgeworth, Foreman, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

21-M-4—Organized 1905.—Part north of the river of township 40 in range 15; townships 41 and 42 in range 15, parts north and east of river in township 41, range 16; all township 41 in range 17; all township 42 in range 16; and parts east of the river of township 42 in range 17, west of the fourth meridian. Secretary-treasurer, W. J. Jones, Duxsbury. Rate of assessment 1909, \$8.00 per quarter section.

22-M-4—Organized 1904.—Townships 43 and 44 in ranges 15 and 16, west of the fourth meridian. Secretary-treasurer, F. R. Bowlby, Spring Lake, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

23-M-4—Organized 1906.—Townships 45 and 46 in ranges 15 and 16, west of the fourth meridian. Secretary-treasurer, E. A. Quantz, Daysland, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

24-M-4—Organized 1906.—Townships 47 and 48 in ranges 15 and 16, west of the fourth meridian. Secretary-treasurer, Austin Dronev, Scona, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

25-M-4—Organized 1904.—Townships 49 and 50 in ranges 15 and 16, west of the fourth meridian. Secretary-treasurer, S. J. Langum, Martins, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

26-M-4—Organized 1904.—Townships 51 and 52 in ranges 15 and 16; part east of B Lake of township 51 and 52 in range 17, west of the fourth meridian. Secretary-treasurer, Henry Trenhaile, Vegreville, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

27-M-4—Organized 1904.—Townships 53 and 54 in ranges 15 and 16, west of the fourth meridian. Secretary-treasurer, Peter Svarich, Box 40, Vegreville, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

28-M-4—Organized 1904.—Townships 55 and 56 in ranges 15 and 16, west of the fourth meridian. Secretary-treasurer, Thos. Hall, Whitford, Alberta. Rate of assessment 1909, \$5.00 per quarter section.

29-M-4—Organized 1904.—Parts south and west of the river of townships 57 and 58 in range 15, township 57, range 16; part south and west of the river of township 58, range 16, west of the fourth meridian. Secretary-treasurer, Elias Marjanicz, Hunka, Alberta. Rate of assessment \$4 00 per quarter section.

30-M-4—Organized 1906.—Parts north of river of township 57 in ranges 14 and 15, township 58, range 14, part north of river of township 58, range 15, township 59 in ranges 14 and 15, west of the fourth meridian. Secretary-treasurer, Wm. Hawrelak, Shandro, Alberta. Rate of assessment 1909, \$5.00 per quarter section.

19-N-4—Organized 1907.—Townships 37 and 38 in ranges 17 and 18, west of the fourth meridian. Secretary-treasurer, J. Skocdopole, Mayville, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

20-N-4—Organized 1904.—Townships 39 and 40 in ranges 17 and 18, west of the fourth meridian. Secretary-treasurer, Dr. Creighton, Red Willow, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

21-N-4—Organized 1905.—Portions south and west of river of township 41 in ranges 16 and 17, township 41 and 42 in range 18; portion south and west of river of township 42, range 17, portion south of river of township 43, ranges 17 and 18 and portion south of river of township 44, range 18, west of the fourth meridian. Secretary-treasurer, J. W. Murphy, Wessington, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

22-N-4—Organized 1904 —Township 44, range 17, part north of river of township 43 in ranges 17 and 18; portion north of river of township 44 in range 18 and portion north of river and lake of township 44 in range 19, west of the fourth meridian. Secretary-treasurer, Geo. W. Sawyer, Ferry Point, Alberta. Rate of assessment 1909, \$8.00 per quarter section

23-N-4 —Organized 1905 —Townships 45 and 46 in ranges 17 and 18, west of the fourth meridian. Secretary-treasurer, K. O. Eggen, Bawlf, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

24-N-4 —Organized 1905.—Townships 47 and 48 in ranges 17 and 18, west of the fourth meridian. Secretary-treasurer, Frank Ewald, Camrose, Alberta. Rate of assessment 1909, \$8 00 per quarter section

25-N-4 —Organized 1905.—Townships 49 and 50 in ranges 17 and 18, west of the fourth meridian Secretary-treasurer, L. Anderson, Ryley, Alberta. Rate of assessment 1909, \$8.00 per quarter section

26-N-4 —Organized 1906 —Townships 51 and 52 in ranges 18 and 19, and township 51 in range 20, west of the fourth meridian Secretary-treasurer, A. J. H. McCauley, Tofield, Alberta Rate of assessment 1909, \$8 00 per quarter section

27-N-4 —Organized 1906 —Townships 53 and 54 in ranges 17 and 18, west of the fourth meridian Secretary-treasurer, Herman A. Schole, Chipman, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

28-N-4 —Organized 1904 —Townships 55 and 56 in ranges 17 and 18, west of the fourth meridian Secretary-treasurer, Theo. Memirsky, Wostok, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

29-N-4 —Organized 1904.—Township 57 in ranges 17 and 18; parts south of the river of township 58 in range 18, south of river of township 58 in range 17, all township 57, range 19, south of the river of township 57, range 20, and township 58, range 19 and the part east of the river of township 58, range 20, west of the fourth meridian Secretary-treasurer, Jno. Kosure, Leeshore, Alberta. Rate of assessment 1909, \$4 00 per quarter section

30-N-4 —Organized 1905 —Part north of the river of township 58 in ranges 16 and 17, part south of river of township 58 in range 17, all township 58 in range 18 and all township 59 in ranges 16, 17 and 18, west of the fourth meridian. Secretary-treasurer, G. H. Harpur, Paken, Alberta. Rate of assessment 1909, \$5.00 per quarter section.

19-P-4—Organized 1907 —Townships 37 and 38 in ranges 19 and 20, west of the fourth meridian Secretary-treasurer, J. H. Bradley, Lowden Lake, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

20-P-4—Organized 1906 —Townships 39 and 40 in ranges 19 and 20, west of the fourth meridian. Secretary-treasurer, L. B. Fisher, Stettler, Alberta. Rate of assessment 1909, \$6 50 per quarter section.

21-P-4—Organized 1906.—Townships 41 and 42 in ranges 19 and 20, west of the fourth meridian Secretary-treasurer, Geo. A. Wells, Whitebrush, Alberta. Rate of assessment 1909, \$4 80 per quarter section.

22-P-4 —Organized 1904 —Township 43 in ranges 19 and 20, part west of the river of township 44 in range 19 and all township 44 in range 20, west of the fourth meridian Secretary-treasurer, W. F. Wendt, Edberg, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

23-P-4—Organized 1904.—Townships 45 and 46 in range 19, parts north and east of river of township 45 in range 20, river lots 21, 22, 23 and 24, sections 13, 24, 25 and 36 in township 46, range 21 and all township 46 in range 20, west of the fourth meridian. Secretary-treasurer, A. W. Flemming, Obaton, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

24-P-4—Organized 1904 —Townships 47 and 48 in ranges 19 and 20, west of the fourth meridian Secretary-treasurer, F. P. Layton, Camrose, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

25-P-4 —Organized 1904 —Townships 49 and 50 in ranges 19 and 20, west of the fourth meridian. Secretary-treasurer, Wm. Thomson, Tofield, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

27-P-4—Organized 1905 —Townships 53 and 54 in ranges 19 and 20, west of the fourth meridian. Secretary-treasurer, E. A. Hallberg, Ross Creek, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

28-P-4—Organized 1904 —Townships 55 and 56 in ranges 19 and 20, east of the river of township 55 in ranges 21 and 22 and east of the river of township 56 in range 21 west of the fourth meridian. Secretary-treasurer, E. A. Holmes, Lamont, Alberta. Rate of assessment 1909, \$5 00 per quarter section.

29-P-4—Organized 1908.—Parts north of the river of townships 57 and 58 in range 20, all township 59 in ranges 19 and 20, and part north of the river of township 58 in range 19, west of the fourth meridian. Secretary-treasurer, J. F. Henery, Pine Creek, Alberta. Rate of assessment 1909, \$5.00 per quarter section.

9-R-4—Organized 1909.—Townships 17 and 18, in ranges 21 and 22, west of the fourth meridian. Secretary-treasurer, T. A. Bryant, Reid Hill, Alberta. Rate of assessment 1909, \$2.00 per quarter section.

18-R-4—Organized 1907.—Part west of river of township 35, range 21; all township 35, range 22; part west of river of township 36, range 22, west of the fourth meridian. Secretary-treasurer, Wm. Williamson, Trenville, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

19-R-4—Organized 1909.—Sections 1 to 24 inclusive in township 37, range 21; portion east of the river of sections 1, 12, 13, 23 and 24 of township 37, range 22; sections 25 to 35 inclusive in township 37, range 22; sections 25, 35, 36 and portion east of river of sections 26, 27 and 34 in township 37, range 22, west of the fourth meridian; sections 1 to 12 inclusive in township 38, range 21; sections 1 and 2 and portion east of river of sections 3 and 10 and sections 11 and 12 in township 38, range 22; sections 13 to 36 inclusive in township 38, range 21; sections 13, 14 and portion east of river of sections 15, 21, 22 and sections 23, 24, 25 and 26, portion east of river of sections 27, 28, 33, 34; sections 35 and 36 in township 38, range 22, west of the fourth meridian. Secretary-treasurer, K. J. Lincoln, Erskine, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

20-R-4—Organized 1905.—Townships 39 and 40 in ranges 21 and 22, west of the fourth meridian. Secretary-treasurer, S. W. Smith, Content, Alberta. Rate of assessment 1909, \$5.00 per quarter section.

21-R-4—Organized 1904.—Townships 41 and 42 in ranges 21 and 22, west of the fourth meridian. Secretary-treasurer, N. A. Donaldson, Manfred, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

22-R-4—Organized 1904.—Townships 43 and 44 in ranges 21 and 22 and part not in Indian Reserve of township 44 in range 23, west of the fourth meridian. Secretary-treasurer, Jens A. Johnson, Highland Park, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

23-R-4—Organized 1904.—Parts south and west of river of township 45 in range 19 and parts south of river of townships 45 and 46 in range 20; all township 45, range 21; south of river to township 46 in ranges 21 and 22; parts south and east of river of township 45 in ranges 22 and 23, west of the fourth meridian. Secretary-treasurer, A. E. Trussler, Highland Park, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

24-R-4—Organized 1904.—Townships 47 and 48 in ranges 21 and 22; part east of the lake of townships 47 and 48 in range 23; all except river lots 21, 22, 23, 23 and sections 13, 24, 25 and 36 in township 46, range 21; all township 46, range 22, north of the river, west of the fourth meridian. Secretary-treasurer, E. C. Roper, Bittern Lake, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

25-R-4—Organized 1906.—Townships 49 and 50 in ranges 21 and 22, west of the fourth meridian. Secretary-treasurer, Jonas Smith, New Sarepta, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

26-R-4—Organized 1906.—Township 51 in ranges 21 and 22, sections 1 to 30 in township 52, range 22, and sections 1 to 30 in township 52, range 21, west of the fourth meridian. Secretary-treasurer, Loudon Baird, Cooking Lake, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

27-R-4—Organized 1904.—Sections 31 to 36 in township 52, range 21; townships 53 and 54 in range 21; sections 31 to 36 in township 52, range 22; all township 53 in range 22; east of river of township 54 in range 22; south and east of river of township 53, range 23; south and east of river of township 54, range 23; south of river of township 53, range 24, west of the fourth meridian. Secretary-treasurer, T. H. Attewell, Agricola, Alberta. Rate of assessment 1909, \$7.40 per quarter section.

28-R-4—Organized 1904.—Parts north and west of river of township 56 in range 21; all township 56, range 22; west of river of township 55, range 22, and all of townships 55 and 56 in range 23, west of the fourth meridian. Secretary-treasurer, C. S. Godbout, Lamoureux, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

29-R-4—Organized 1907.—Townships 57 and 58 in ranges 22 and 23, and townships 57 and 58 in range 21, west of the fourth meridian. Secretary-treasurer, Wm. Mason, Bon Accord, Alberta. Rate of assessment 1909, \$6.40 per quarter section.

6-S-4—Organized 1906.—Parts north of the river of township 10 in range 24 and townships 9 and 10 in range 25; all townships 11 and 12 in ranges 24 and 25, west of the fourth meridian. Secretary-treasurer, F. Matheson, Granum, Alberta. Rate of assessment 1909, \$3.00 per quarter section.

7-S-4—Organized 1906.—Townships 13 and 14, ranges 24 and 25, west of the fourth meridian. Secretary-treasurer, J. Stanley Hollies, Stavely, Alberta. Rate of assessment 1909, \$3.00 per quarter section.

8-S-4—Organized 1906 —Townships 15 and 16, ranges 23 and 24, west of the fourth meridian Secretary-treasurer, Ed. N. Zinn, Cleverville, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

9-S-4—Organized 1908.—Townships 17, 18 and 19 in ranges 23 and 24 west of the fourth meridian Secretary-treasurer, W. H. Olliffe, Arrowwood, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

15-S-4—Organized 1906 —Townships 29 and 30 in ranges 23 and 24, west of the fourth meridian Secretary-treasurer, T. J. Bishop, Carbon, Alberta. Rate of assessment 1909, \$5.00 per quarter section

16-S-4—Organized 1906 —Townships 31 and 32 in ranges 22, 23 and 24, west of the fourth meridian Secretary-treasurer, Henry Evans, Three Hills, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

17-S-4—Organized 1907 —Parts west of the river of townships 33 and 34 in range 21 and all townships 33 and 34 in ranges 22, 23 and 24, west of the fourth meridian. Rate of assessment 1909, \$4.80 per quarter section.

18-S-4—Organized 1906 —Townships 35 and 36 in ranges 23 and 24 west of the fourth meridian. Secretary-treasurer, G. H. Baylis, Lake View, Alberta Rate of assessment 1909, \$4 80 per quarter section

19-S-4—Organized 1905 —Township 37 in ranges 23 and 24, part south and east of the river of township 38 in range 23, part south of the river of township 38 in ranges 24 and 25 and south of the river of township 37 in range 25, parts south and west of the river of townships 37, 38 and 39 in range 22, west of the fourth meridian. Secretary-treasurer, Andrew J. Creighton, Culham, Alberta. Rate of assessment 1909, \$6 00 per quarter section

20-S-4—Organized 1904.—Parts north of the river of township 38 in ranges 23 and 24 and all townships 39 and 40 in ranges 23 and 24, west of the fourth meridian. Secretary-treasurer, P. Russell, Gaets Valley, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

21-S-4—Organized 1904 —Townships 41 and 42 in ranges 23 and 24, west of the fourth meridian Secretary-treasurer, W. W. Batson, Earlville Alberta Rate of assessment 1909, \$8 00 per quarter section

22-S-4—Organized 1904 —Parts not in Indian Reserve of township 43 in ranges 23, 24 and 25 and township 44 in range 25, all townships 43 and 44 in range 26, west of the fourth meridian. Secretary-treasurer, T. W. Hutchinson, Ponoka, Alberta. Rate of assessment 1909, \$8.00 per quarter section

23-S-4—Organized 1904 —Parts west of the river of townships 45 and 46 in ranges 22 and 23, all townships 46 in ranges 24 and 25 and the east half of township 45 in range 24, west of the fourth meridian Secretary-treasurer, E. G. Rodell, Wetaskiwin, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

24-S-4—Organized 1904 —Parts west of the lake of townships 47 and 48 in range 23 and all townships 47 and 48 in ranges 24 and 25, west of the fourth meridian. Secretary-treasurer, R. Sheppard, Millet, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

25-S-4—Organized 1904 —Townships 49 and 50 in ranges 23, 24 and 25 west of the fourth meridian Secretary-treasurer, Wm. Heatley, Leduc, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

26-S-4 —Organized 1904.—Townships 51 and 52 in range 23, township 51 in range 24, parts south and east of the river of township 51, range 25, and township 52, range 24, and all township 52 in range 25, west of the fourth meridian Secretary-treasurer, B. Andrews, Strathcona, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

27-S-4—Organized 1904.—Parts north and west of the river of township 53, range 23, and parts north and west of the river of townships 52 and 54 in range 25, parts south and east of the river of townships 53 and 54 in range 25, all township 54 in range 23 and all townships 53 and 54 in range 24, west of the fourth meridian Secretary-treasurer, M. Hogan, St. Albert, Alberta. Rate of assessment 1909, \$8 00 per quarter section

28-S-4—Organized 1904 —Townships 55 and 56 in ranges 24 and 25, west of the fourth meridian Secretary-treasurer, G. Morris, Excelsior, Alberta. Rate of assessment 1909, \$7 00 per quarter section.

29-S-4—Organized 1904 —Townships 57 and 58 in ranges 24 and 25 and township 59 in range 24, west of the fourth meridian. Secretary-treasurer, P. J. Monaghan, Legal, Alberta Rate of assessment 1909, \$8 00 per quarter section.

4-T-4—Organized 1906 —Parts west of the river of township 7 in ranges 24 and 25 and township 8 in ranges 24 and 25, all of townships 7 and 8 in range 26, west of the fourth meridian. Secretary-treasurer, W. A. Day, Macleod, Alberta. Rate of assessment 1909, \$3 20 per quarter section.

5-T-4—Organized 1906 —Parts north of the river of township 9 in ranges 26 and 27, all township 10 in ranges 26 and 27, west of the fourth meridian. Secretary-treasurer, H. Mackintosh, Macleod, Alberta. Rate of assessment 1909, \$4.00 per quarter section.

6-T-4—Organized 1906.—Townships 11 and 12 in ranges 26 and 27, west of the fourth meridian. Secretary-treasurer, A. H. Tovell, Claresholm, Alberta. Rate of assessment \$3 20 per quarter section.

7-T-4—Organized 1906 —Townships 13 and 14 in ranges 26 and 27, west of the fourth meridian. Secretary-treasurer, J. B. Robertson, Stavely, Alberta. Rate of assessment 1909, \$5 00 per quarter section.

8-T-4—Organized 1906 —Townships 15 and 16 in ranges 25 and 26, west of the fourth meridian. Secretary-treasurer, W. F. White, Nanton, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

9-T-4—Organized 1906 —Townships 17 and 18 in ranges 25 and 26, west of the fourth meridian. Secretary-treasurer, A. C. McIntyre, Brant, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

10-T-4—Organized 1906 —Townships 19 and 20 in range 25 and south of the river of township 21 in ranges 25 and 26 and township 22, range 25, and all townships 19 and 20 in range 26, west of the fourth meridian. Secretary-treasurer, F. E. Rhoades, Dinton, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

15-T-4—Organized 1905.—Townships 29 and 30 in ranges 25 and 26, west of the fourth meridian. Secretary-treasurer, Wilbur Pardy, Tapesco, Alberta. Rate of assessment 1909, \$6.00 per quarter section.

16-T-4—Organized 1904.—Townships 31 and 32 in ranges 25 and 26, west of the fourth meridian. Secretary-treasurer, Jno. McAlpine, Sunny Slope, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

17-T-4—Organized 1904 —Townships 33 and 34 in ranges 25 and 26, west of the fourth meridian. Secretary-treasurer, J. H. McArthur, Knee Hill Valley, Alberta. Rate of assessment 1909, \$5 60 per quarter section.

18-T-4—Organized 1904 —Townships 35 and 36 in ranges 25 and 26, west of the fourth meridian. Secretary-treasurer, F. J. Powell, Edwell, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

19-T-4—Organized 1904 —All townships 37 in range 26 and 27, parts south of the river of townships 38 and 39 in range 26, parts east of the river of townships 37 and 38 in range 28, parts south and east of the river of townships 38 and 39 in range 27, west of the fourth meridian. Secretary-treasurer, W. P. Code, Red Deer, Alberta. Rate of assessment 1909, \$6.40 per quarter section.

20-T-4—Organized 1904 —Parts north of the river of township 38 in ranges 25 and 26, all townships 39 and 40 in range 25, north of river of township 39 in range 26 and all township 40 in range 26, west of the fourth meridian. Secretary-treasurer, E. Wal Simpson, Lacombe, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

21-T-4 —Organized 1904 —Townships 41 and 42 in ranges 25 and 26, west of the fourth meridian. Secretary-treasurer, J. H. Webster, Morningside, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

23-T-4—Organized 1904 —Townships 45 and 46 in ranges 26, 27 and 28 west of the fourth meridian. Secretary-treasurer, L. P. Larson, Wetaskiwin, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

24-T-4—Organized 1904 —Townships 47 and 48 in ranges 26, 27 and 28, west of the fourth meridian. Secretary-treasurer, S. L. Price, Conjuring Creek, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

25-T-4—Organized 1904 —Township 49 in ranges 26, 27 and 28, parts south of the river of township 50 in ranges 26, 27 and 28, west of the fourth meridian. Secretary-treasurer, Olaf C. Melin, Calmar, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

26-T-4—Organized 1904 —Parts north of the river of township 50 in ranges 26, 27 and 28, parts west of the river of township 51 in range 25, all townships 51 and 52 in range 26, fractional townships 51 and 52 in ranges 27 and 28, west of the fourth meridian. Secretary-treasurer, G. Sutherland, Spruce Grove, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

27-T-4 —Organized 1904.—Townships 53 and 54 in range 26, parts not in Indian Reserve of townships 53 and 54 in range 27, west of the fourth meridian. Secretary-treasurer, Edm. Pinchbeck, Winterburn, Alberta. Rate of assessment 1909, \$7.00 per quarter section.

28-T-4—Organized 1904. —Townships 55 and 56 in range 26, parts not in Indian Reserve of townships 55 and 56 in range 27, west of the fourth meridian. Secretary-treasurer, P. E. Constantin, Riviere Qui Barre, Alberta. Rate of assessment 1909, \$7 20 per quarter section.

29-T-4 —Organized 1905 —Townships 57 and 58 in ranges 26 and 27, west of the fourth meridian. Secretary-treasurer, Jno. E. Williams, Independence, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

30-T-4—Organized 1906.—Townships 59 and 60 in ranges 25, 26 and 27, west of the fourth meridian. Secretary-treasurer, W. M. Garrison, Edson, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

8-W-4—Organized 1904.—Townships 15 and 16, ranges 27, 28, 29 and 30, west of the fourth meridian. Secretary-treasurer, Jas. T. Cooper, Nanton, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

9-W-4—Organized 1904—Townships 17 and 18 in ranges 27, 28, 29 and 30, west of the fourth meridian. Secretary-treasurer, Wm. Caspell, Cayley, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

10-W-4—Organized 1904—Townships 19 and 20 in range 27, part south of the Bow River of township 21 in range 27, parts south and east of High River of townships 19, 20 and 21, in range 28, west of the fourth meridian. Secretary-treasurer, H. Hill Wilson, Gladys, Alberta. Rate of assessment 1909, \$3.20 per quarter section.

12-W-4—Organized 1905—Parts north of the river of township 21 in ranges 26 and 27, all townships 22 and 23 in ranges 26 and 27; south half of township 24 in ranges 26 and 27, west of the fourth meridian. Secretary-treasurer, Wm. Kirton, Cheadle, Alberta. Rate of assessment 1909, \$5 00 per quarter section.

13-W-4—Organized 1906—Parts north half of township 24 in ranges 28 and 29, all townships 25 and 26 in ranges 28 and 29, west of the fourth meridian. Secretary-treasurer, Jno Redmond, Rocky View, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

14-W-4—Organized 1906—Townships 27 and 28 in ranges 27, 28 and 29 west of the fourth meridian. Secretary-treasurer, Thos H. E. Magee, Crossfield, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

15-W-4—Organized 1904—Townships 29 and 30 in ranges 27, 28 and 29, west of the fourth meridian. Secretary-treasurer, Fred R. Robinson, Carstairs, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

16-W-4—Organized 1904—Townships 31 and 32 in ranges 27, 28 and 29, west of the fourth meridian. Secretary-treasurer, Malcolm McLean, Neapolis, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

17-W-4—Organized 1904—Townships 33 and 34 in ranges 27, 28 and 29, west of the fourth meridian. Secretary-treasurer, J. A. Weir, Bowden, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

18-W-4—Organized 1904—Townships 35 and 36 in range 27, parts east of the Red Deer River of townships 35 and 36 in range 28, west of the fourth meridian; townships 35 and 36, range 1, and parts south of the river of townships 35 and 36 in range 2, west of the fifth meridian. Secretary-treasurer, Ed J. Fream, Innisfail, Alberta. Rate of assessment 1909, \$5 00 per quarter section.

20-W-4—Organized 1904—Part west of the river to township 39 in range 27, parts north and west of the river of township 39 in range 28, all township 40 in ranges 27 and 28, west of the fourth meridian. Secretary-treasurer, Jas. McNicol, Blackfalds, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

21-W-4—Organized 1904—Townships 41 and 42 in ranges 27 and 28, west of the fourth meridian. Secretary-treasurer, James Kinley, Iowalta, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

22-W-4—Organized 1905.—Townships 43 and 44 in ranges 27 and 28, west of the fourth meridian. Secretary-treasurer, C. S. Wing, Ferrybank, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

2-Z-4—Organized 1904—Townships 3 and 4 in ranges 29 and 30 and township 4 in range 28, west of the fourth meridian. Secretary-treasurer, John H. Izod, Twin Butte, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

3-Z-4—Organized 1904—Townships 5 and 6 in ranges 28, 29 and 30, west of the fourth meridian. Secretary-treasurer, J. W. Harwood, Pincher Creek, Alberta. Rate of assessment 1909, \$4.00 per quarter section.

4-Z-4—Organized 1906—Townships 7 and 8 in ranges 29 and 30, west of the fourth meridian, and sections 7 and 18 in township 7, range 28, west of the fourth meridian. Secretary-treasurer, Thos Hammond, Pincher Creek, Alberta. Rate of assessment 1909, \$5 00 per quarter section.

10-Z-4—Organized 1905.—Township 20 in ranges 1, 2 and 3, west of the fifth meridian, parts west of the river of township 20 in ranges 28 and 29, parts south and west of the river of township 21 in range 28, parts south of the river of township 22 in range 28 and township 21, range 29, west of the fourth meridian. Secretary-treasurer, E. A. Hayes, Okotoks, Alberta. Rate of assessment 1909, \$4.80 per quarter section.

12-Z-4—Organized 1905.—Part north of the river of townships 21 and 22; range 28, all townships 23, range 28, north and east of the river of 21, range 29, east of the river of townships 22 and 23 range 29, west of the fourth meridian, east of the river of townships 22 and 23, range 1, west of the fifth meridian, south half of township 24 in ranges 28 and 29, west of the fourth meridian, and south and east of the river of township 24, range 1, west of the fifth meridian. Secretary-treasurer, Wm. Hinde, Bow Hill, Calgary, Alberta. Rate of assessment 1909, \$4 80 per quarter section.

3-A-5—Organized 1904—Townships 5 and 6 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, E. P. Holmes, Mountain Mill, Alberta. Rate of assessment 1909, \$5.00 per quarter section.

4-A-5—Organized 1904—Townships 7, 8 and 9 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, R. H. Burn, Gillingham, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

9-A-5—Organized 1905.—Parts south of the river of townships 17 and 18 in range 1; all township 17 in ranges 2 and 3 and parts south of the river of township 18 in ranges 2 and 3, west of the fifth meridian. Secretary-treasurer, W. G. Hanson, Peksisko, Alberta. Rate of assessment 1909, \$2 00 per quarter section.

10-A-5—Organized 1905.—Parts north of the river of township 18 in ranges 29 and 30, fraction west of the river of township 19 in ranges 28, 29 and 30, north of the river of townships 18 and 19, range 1, and north of the river of township 18 in ranges 2 and 3, west of the fifth meridian, all township 19 in ranges 2 and 3, west of the fifth meridian. Secretary-treasurer, Geo. H. McKee, Tongue Creek, Alberta. Rate of assessment 1909, \$4.00 per quarter section.

11-A-5—Organized 1904.—Townships 21 and 22 in ranges 1 and 2, part between the Bow and the Elbow Rivers of township 23 in range 1, west of the fifth meridian; parts west of the river of townships 22 and 23 in range 29, west of the fourth meridian. Secretary-treasurer, E. J. Kieran, Millarville, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

12-A-5—Organized 1904.—Parts north and west of the river of township 23 in range 1, south of the river of township 24 in range 1; south and west of the river of townships 24 and 25 in range 2, east half of township 24 in range 4 and all township 24 in range 3 and south and west of the river of township 25 in range 3, west of the fifth meridian. Secretary-treasurer, Jno. M. Belway, Calgary, Alberta. Rate of assessment 1909, \$4 00 per quarter section.

13-A-5—Organized 1905.—Parts north and east of the river of townships 25 and 26 in ranges 1 and 2 and township 24 in range 2, north half of township 24 in range 1, west of the fifth meridian. Secretary-treasurer, E. J. Riley, Calgary, Alberta. Rate of assessment 1909, \$3 20 per quarter section.

14-A-5—Organized 1904.—Townships 27 and 28 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, Leslie Farr, Airdrie, Alberta. Rate of assessment 1909, \$6 00 per quarter section.

15-A-5—Organized 1904.—Townships 29 and 30, in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, M. P. Shantz, Carstairs, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

16-A-5—Organized 1904.—Townships 31 and 32 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, A. M. McNaughton, Didsbury, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

17-A-5—Organized 1904.—Townships 33 and 34 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, Jno. A. Dudley, Olds, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

18-A-5—Organized 1904.—Part west of the river of township 36 in range 28, west of the fourth meridian, parts north of the river of township 36 in range 1 and north of the river of townships 35 and 36 in range 2, all township 35 in range 4 and part north of the river of township 35 in range 3, township 36 in ranges 3 and 4, west of the fifth meridian. Secretary-treasurer, D. Sullivan, Innisfail, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

19-A-5—Organized 1904.—Parts west of the Red Deer River of township 38 in ranges 27 and 28 and townships 37 in range 28, all townships 37 and 38 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, T. J. Davidson, Marker-ville, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

20-A-5—Organized 1904.—Townships 39 and 40 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, J. C. Carritt, Bentley, Alberta. Rate of assessment 1909, \$7 00 per quarter section.

21-A-5—Organized 1904.—Townships 41 and 42 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, E. A. Shirtcliff, Bentley, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

22-A-5—Organized 1905.—Townships 43 and 44 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, Curtis J. Eley, Buckhorn, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

23-A-5—Organized 1906.—Townships 45 and 46 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, A. C. Bunney, Battle Lake, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

25-A-5—Organized 1906.—Township 49 in ranges 1 and 2, township 50 in range 2, south of the river of township 51 in range 2, and all township 50 in range 1, west of the fifth meridian. Secretary-treasurer, Geo. McFarquhar, Telfordville, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

26-A-5—Organized 1904.—Part north of the river of township 50 in range 1; townships 51 and 52 in range 1, townships 51 and 52 in range 2 and north of the river of township 50 in range 2, west of the fifth meridian. Secretary-treasurer, Wm. Nicoll, Mewassin, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

27-A-5—Organized 1905.—Townships 53 and 54 in range 28, west of the fourth meridian, townships 53 and 54 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, Arthur Priestley, Onoway, Alberta. Rate of assessment 1909, \$8.00 per quarter section.

28-A-5—Organized 1908 —Part not included in Indian Reserve of township 55, range 1 and township 56, range 1, all township 55 and 56 in range 2, west of the fifth meridian. Secretary-treasurer, J. Hamilton, Onoway, Alberta. Rate of assessment 1909, \$8 00 per quarter section

29-A-5—Organized 1907.—Townships 57 and 58 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, A. Soutter, Dunstable, Alberta. Rate of assessment 1909, \$8 00 per quarter section

30-A-5—Organized 1908 —Townships 59 and 60 in ranges 1 and 2, west of the fifth meridian. Secretary-treasurer, T. A. Clark, Pembina, Alberta. Rate of assessment 1909, \$6 40 per quarter section

11-B-5—Organized 1904 —Townships 21 and 22 in ranges 3 and 4, west of the fifth meridian. Secretary-treasurer, J. W. Ockley, Calgary, Alberta. Rate of assessment 1909, \$3 20 per quarter section.

15-B-5—Organized 1905. —Townships 29 and 30 in ranges 3 and 4, west of the fifth meridian. Secretary-treasurer, G. B. Hunter, Dog Pound, Alberta. Rate of assessment 1909, \$5 00 per quarter section.

16-B-5—Organized 1904 —Townships 31 and 32 in ranges 3 and 4, all township 31, range 5, and the part south and east of the Red Deer River of township 32, range 5, west of the fifth meridian. Secretary-treasurer, Walter B. Smith, Didsbury, Alberta. Rate of assessment 1909, \$8.00 per quarter section

17-B-5—Organized 1905 —Townships 33 and 34 in range 3, south and east of river, parts south and east of Red Deer River of townships 34 and 35 in range 3, south and east of Red Deer River of township 34 in range 5 and township 33, range 5; all township 34, range 4, west of the fifth meridian. Secretary-treasurer, Jos. A. Simmance, Garrington, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

19-B-5—Organized 1904 —Townships 37 and 38 in ranges 3 and 4, west of the fifth meridian. Secretary-treasurer, O. M. Forhan, Evarts, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

20-B-5 —Organized 1904 —Townships 39 and 40 in ranges 3 and 4, west of the fifth meridian. Secretary-treasurer, E. N. French, Evarts, Alberta. Rate of assessment 1909, \$7.00 per quarter section

21-B-5—Organized 1906 —Townships 41 and 42 in ranges 3 and 4, west of the fifth meridian. Secretary-treasurer, S. W. Eastburn, Wittenburg, Alberta. Rate of assessment 1909, \$5 00 per quarter section.

22-B-5—Organized 1908 —Townships 43 and 44 in ranges 3 and 4, west of the fifth meridian. Secretary-treasurer, C. H. Pleasants, Bluff Centre, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

26-B-5—Organized 1906 —Parts north of the Saskatchewan River of township 50 in ranges 3 and 4, and townships 51 and 52 in range 3, all township 51 and 52 in range 4, west of the fifth meridian. Secretary-treasurer, M. L. Hoffman, Mewassin, Alberta. Rate of assessment 1909, \$8 00 per quarter section

27-B-5—Organized 1904 —Townships 53 and 54 in ranges 3 and 4, west of the fifth meridian. Secretary-treasurer, Frank Pegrum, Wabamun, Alberta. Rate of assessment 1909, \$8 00 per quarter section

13-C-5—Organized 1905 —Parts north of the river of township 26 in ranges 5 and 6, all township 27 in ranges 5 and 6, west of the fifth meridian. Secretary-treasurer, J. A. Cooper, Cochrane, Alberta. Rate of assessment 1909, \$2.00 per quarter section.

17-C-5—Organized 1908.—Parts north and west of the Red Deer River of townships 32, 33 and 34 in range 5 and part north of the Red Deer River of township 32 in range 6, all townships 33 and 34 in ranges 6 and 7, west of the fifth meridian. Secretary-treasurer, Fred Loble, Loble, Alberta. Rate of assessment 1909, \$6 00 per quarter section

18-C-5—Organized 1908.—Townships 35 and 36 in ranges 5 and 6, west of the fifth meridian. Secretary-treasurer, Thos. Forrest, Caroline, Alberta. Rate of assessment 1909, \$6.00 per quarter section

19-C-5—Organized 1908 —Townships 37 and 38 in ranges 5 and 6, west of the fifth meridian. Secretary-treasurer, W. H. Comstock, Stauffer, Alberta. Rate of assessment 1909, \$8 00 per quarter section

20-C-5—Organized 1907 —Townships 39 and 40 in ranges 5 and 6, west of the fifth meridian. Secretary-treasurer, A. Sim, Lesheville, Alberta. Rate of assessment 1909, \$7.00 per quarter section.

25-C-5—Organized 1908 —Parts north of the Saskatchewan River of township 50 in ranges 5 and 6 and part north of the Saskatchewan River of township 49 in range 6, all of township 51 in ranges 5 and 6, west of the fifth meridian. Secretary-treasurer, Martin McDonald, Tomahawk, Alberta. Rate of assessment 1909, \$8 00 per quarter section

26-C-5—Organized 1907 —Townships 52 and 53 in ranges 5 and 6, west of the fifth meridian. Secretary-treasurer, W. Merryweather, Wabamun, Alberta. Rate of assessment 1909, \$8 00 per quarter section.

VILLAGES

During the year 1909 the number of villages established was greatly increased over the number established during the year 1908. The following is a list of the villages established during the year:

<i>Name of Village.</i>	<i>Date Established.</i>
Airdrie	Sept. 10, 1909
Bassano	Dec. 28, 1909
Castor	Nov. 26, 1909
Entwistle	Mar. 26, 1909
Grouard	Sept. 27, 1909
Holden	Apr. 14, 1909
Pincher City	Aug. 18, 1909
Viking	Mar. 3, 1909
Wainwright	Mar. 25, 1909

The villages in existence at the end of the year 1909 are as follows:

<i>Name of Village.</i>	<i>Date Established</i>
Airdrie	Sept. 10, 1909
Athabasca Landing	May 18, 1905
Alix	June 3, 1907
Bassano	Dec. 28, 1909
Blackfalds	June 17, 1904
Blairmore	Sept. 3, 1901
Bawlf	Oct. 12, 1906
Bowden	June 17, 1904
Bruderheim	May 29, 1908
Carstairs	May 15, 1903
Castor	Nov. 26, 1909
Cayley	Aug. 5, 1904
Cochrane	June 17, 1903
Coleman	Jan. 11, 1904
Cowley	Aug. 16, 1906
Crossfield	June 3, 1907
Crescent Heights	May 1, 1908
Entwistle	Mar. 26, 1909
Evarts	June 9, 1906
Frank	Sept. 3, 1901
Gleichen	Jan. 24, 1899
Granum	July 12, 1904
Grouard	Sept. 27, 1909
Hardisty	Dec. 12, 1906
Holden	Apr. 14, 1909
Islay	Mar. 3, 1907
Killam	Dec. 29, 1906
Lavoy	Aug. 22, 1906
Lille	Feb. 22, 1904
Lloydminster	July 6, 1906
Langdon	Aug. 31, 1907
Millet	June 17, 1903
Morinville	Aug. 24, 1901
Mountain View	May 5, 1902
Mannville	Dec. 29, 1906
Mundare	Mar. 6, 1907
Ohaton	Sept. 9, 1906
Penhold	May 4, 1904
Pincher City	Aug. 18, 1909
Rosenroll	Nov. 21, 1904
Stafford	Oct. 22, 1900
Stavely	Oct. 16, 1903
Strathmore	Mar. 20, 1908
Stirling	Sept. 3, 1901
Spruce Grove	Mar. 14, 1907
Sedgewick	Mar. 6, 1907
Viking	Mar. 3, 1909
Wainwright	Mar. 25, 1909
Warner	Nov. 12, 1908

During the year 1909 the following villages were proclaimed towns:

<i>Name of Town.</i>	<i>Date Established.</i>
Irvine	June 11, 1909
Tofield	Sept. 10, 1909

COLLECTION OF ARREARS OF SCHOOL TAXES.

During the year 1909 we collected the sum of \$19,949.96 for arrears of school taxes and fees due on lands situated in rural school districts. These arrears were forwarded to the districts to which they belonged as soon as received. Our work in connection with the collection of arrears of school taxes is much hindered by the failure of some of the districts to forward the necessary returns to the department and it would, I think, be in order that some provision be made whereby the forwarding of these returns should be made compulsory.

FORFEITED LANDS.

List showing lands in respect of which Returns of Arrears have been confirmed, and which have not been redeemed

LANDS	DATE OF APPROVAL OF RETURN BY JUDGE	DATE OF FINAL ORDER OF FORFEITURE
N W section 28-9-1w4	Jan 14, 1909	
N W section 30-49-1w4	Nov 17, 1908	
N E section 22-49-1w4	Nov 17, 1908	
N W section 20-49-1w4	Nov. 17, 1908	
N W. section 28-50-1w4	Nov 17, 1908	
Lot 14, blk 1, Village of Lloydminster	Nov 17, 1908	
Lot 8, blk. 10, Village of Lloydminster	Nov. 17, 1908	
Lot 5, blk. 1, Village of Lloydminster	Nov. 17, 1908	
Lot 19, blk 7, Village of Lloydminster	Nov. 17, 1908	
N E section 24-9-2w4	Jan 14, 1909	
S W section 18-9-2w4	Jan. 14, 1909	
S W section 6-9-2w4	Jan. 14, 1909	
N W section 30-8-2w4	Jan. 14, 1909	
S W section 30-8-2w4	Jan 14, 1909	
N E section 24-9-3w4	Jan. 14, 1909	
N E section 26-8-3w4	Jan. 14, 1909	
N W section 10-11-3w4	Jan. 14, 1909	
S E section 20-12-3w4	Jan 14, 1909	
N E section 22-9-4w4	Jan. 14, 1909	
S E. section 32-10-4w4	Jan. 14, 1909	
N E section 20-10-4w4	Jan. 14, 1909	
S E. section 20-10-4w4	Jan. 14, 1909	
S W. section 28-11-4w4	Jan 14, 1909	
N W. section 22-11-4w4	Jan. 14, 1909	
S W section 32-10-4w4	Jan 14, 1909	
S W section 12-11-4w4	Jan 14, 1909	
N W section 30-8-5w4	Jan 14, 1909	
N 1/2 section 10-9-5w4	Jan. 14, 1909	
N W section 32-10-5w4	Jan. 14, 1909	
N W section 26-10-5w4	Jan 14, 1909	
S E section 14-51-6w4	Nov. 17, 1908	
E 1/2 section 21-52-6w4	Nov. 17, 1908	
S W section 26-12-6w4	Jan. 14, 1909	
S E section 12-12-6w4	Jan. 14, 1909	
N E section 2-13-6w4	Jan 14, 1909	

FORFEITED LANDS — *Continued*

LANDS	DATE OF APPROVAL OF RETURN BY JUDGE	DATE OF FINAL ORDER OF FORFEITURE
N.E. section 9-52-7w4	Nov. 17, 1908	
S E section 36-50-7w4	Nov 17, 1908	
N.E. section 2-45-7w4	Nov. 17, 1908	
S E section 14-11-7w4	Jan. 14, 1909	
N W section 32-49-8w4	Nov. 17, 1908	
North of river of N W. section 13-2-8w4	Jan. 14, 1909	
N W section 4-17-8w4	Jan 14, 1909	
N.W. section 2-50-9w4	Nov. 17, 1908	
S W. section 30-51-11w4	Nov 17, 1908	
N.W. section 16-54-11w4	Nov 17, 1908	
S W. section 12-15-11w4	Jan. 14, 1909	
North half of the N.E section 2-15-11w4	Jan. 14, 1909	
S.W. section 30-53-12w4	Nov. 17, 1908	
S W. section 14-53-12w4	Nov. 17, 1908	
S half of the N W section 34-40-12w4	Nov. 30, 1908	
All section 7-54-13w4	Nov 17, 1908	
S E. section 16-57-13w4	Nov 17, 1908	
Lot 16, blk 3, Killam	Nov 30, 1908	
Lot 22, blk 4, Killam	Nov 30, 1908	
Lot 12, blk. 4, Village of Lavoy	Nov 17, 1908	
E. $\frac{1}{2}$ section 33-53-14w4	Nov. 17, 1908	
E $\frac{1}{2}$ section 17-53-14w4	Nov 17, 1908	
N E section 14-45-14w4	Nov 30, 1908	
N W section 10-45-14w4	Nov. 30, 1908	
N.W section 12-2-14w4	Jan. 12, 1909	
Pt N.W. section 16-11-14w4	Jan 12, 1909	
N W. section 26-52-15w4	Nov. 17, 1908	
N.W section 22-42-15w4	Nov 30, 1908	
N W section 20-43-15w4	Nov 30, 1908	
Lot 17, blk. 2, Townsite of Strome, sec 23-44-15w4	Nov 30, 1908	
N.W section 34-51-16w4	Nov 17, 1908	
S W section 10-52-16w4	Nov. 17, 1908	
Lot 3, blk 4, Townsite of Mundare	Nov. 17, 1908	
N.W section 2-53-16w4	Nov. 17, 1908	
S W section 28-45-16w4	Nov. 30, 1908	
All section 15-53-17w4	Nov. 23, 1908	
All section 3-54-17w4	Nov 23, 1908	
All section 25-38-17w4	Nov 30, 1908	
West of the river of the N.W. section 24-41-17w4	Nov. 30, 1908	
N W. section 23-41-17w4	Nov. 30, 1908	
N.W and N $\frac{1}{2}$ of the S W. section 6-50-17w4.	Nov 23, 1908	
S.E. section 20-40-17w4	Nov 30, 1908	
N.W section 34-52-18w4	Jan. 14, 1905	Dec 18, 1907
N.W. section 6-55-18w4	Nov 23, 1908	
S.E section 36-38-18w4	Nov 30, 1908	
S.E section 16-38-18w4	Nov 30, 1908	
S E section 3-38-18w4	Nov 30, 1908	
N.W. section 26-18-18w4	Jan 12, 1909	
S.W and west half of N E section 4-50-18w4 .	Nov. 23, 1908	
E. half of the N E section 4-49-19w4	Nov. 23, 1908	
S.E section 24-55-19w4	Nov 23, 1908	
S.W. section 17-55-19w4	Nov. 23, 1908	
N.E. section 28-47-19w4	Nov 30, 1908	
N W. section 28-47-19w4	Nov. 30, 1908	
S.W section 30-47-19w4	Nov 30, 1908	
N. W. section 18-44-19w4 .	Nov 30, 1908	
N.W. section 28-56-19w4	Nov. 23, 1908	
S.E. section 16-47-19w4	Nov 30, 1908	
S.E. section 12-48-19w4	Nov 30, 1908	
S.W section 14-36-19w4	Nov. 30, 1908	
N W. section 6-55-20w4	Nov 23, 1908	
N.W. section 4-55-20w4	Nov 23, 1908	
S E section 12-45-20w4	Nov. 30, 1906	

FORFEITED LANDS.—*Continued.*

LANDS	DATE OF APPROVAL OF RETURN BY JUDGE	DATE OF FINAL ORDER OF FORFEITURE
N W section 20-47-20w4	Nov. 30, 1908	
N E. section 24-37-20w4	Nov 30, 1908	
N E. section 18-37-20w4	Nov. 30, 1908	
Legal subdivision 3 in sec 14-46-20w4	Nov 30, 1908	
N E. section 36-55-21w4	Jan 14, 1905	Dec. 18, 1908.
S E section 34-55-21w4	Nov 23, 1908	
S.W. section 17-55-21-w4	Nov. 23, 1908	
S.W. section 34-37-21w4	Nov. 30, 1908	
S W. section 10-38-21w4	Nov. 30, 1908	
S.E section 4-38-21w4	Nov. 30, 1908	
N W. section 16-56-21w4	Nov. 23, 1908	
W. of river of the S W. section 21-35-21w4	Nov 30, 1908	
S E section 24-41-21w4	Nov. 30, 1908	
Lot 117 in sec 29-8-21w4	Jan. 12, 1908	
West half of the S E. section 26-4-21w4	Jan. 12, 1909	
N W. section 26-7-2w4	Oct 16, 1902	Dec. 18, 1907
West half of the W. section 10-8-22w4	Dec 12, 1904	Dec. 18, 1907
N W. section 22-53-22w4	Nov 23, 1908	
S W. section 10-41-22w4	Nov 30, 1908	
N E section 6-55-22w4	Nov 23, 1908	
River lot 18, tp 55-22-w4	Nov. 23, 1908	
N E section 24-56-22w4	Nov. 23, 1908	
S.W section 6-56-22w4	Nov 23, 1908	
N W section 24-55-22w4	Nov. 23, 1908	
South of river of the N W section 16-46-22w4	Nov. 30, 1908	
N W. section 9-46-22w4	Nov. 30, 1908	
N W. section 34-44-22w4	Nov. 30, 1908	
N E section 32-44-22w4	Nov. 30, 1908	
N.W. section 28-44-22w4	Nov 30, 1908	
N.W. section 18-44-22w4	Nov 30, 1908	
N.E. section 14-36-22w4	Nov 30, 1908	
S.W. section 18-39-22w4	Nov 30, 1908	
S.W. section 36-40-22w4	Nov 30, 1908	
N.E. section 18-40-22w4	Nov. 30, 1908	
N.W section 18-40-22w4	Nov. 30, 1908	
S E. section 18-40-22w4	Nov. 30, 1908	
N E section 2-40-22w4	Nov 30, 1908	
Lot 9, blk 1, N W section 34-40-22w4, Lamerton	Nov 30, 1908	
Lot 18, blk 1, N.W section 34-40-22w4, Lamerton	Nov. 30, 1908	
Lot 19, blk 1, N.W section 34-40-22w4, Lamerton	Nov. 30, 1908	
Lot 21, blk. 1, N W. section 34-40-22-w4, Lamerton	Nov 30, 1908	
Lot 22, blk. 1, N.W. section 34-40-22w4, Lamerton .	Nov. 30, 1908	
Lot 23, blk 1, N.W. section 34-40-22w4, Lamerton	Nov. 30, 1908	
Lot 24, blk. 1, N W section 34-40-22w4, Lamerton	Nov 30, 1908	
Lot 25, blk 1, N.W. section 34-40-22w4, Lamerton	Nov. 30, 1908	
Lot 26, blk. 1, N W. section 34-40-22w4, Lamerton	Nov. 30, 1908	
Lot 43, blk. 1, N W section 34-40-22w4, Lamerton	Nov. 30, 1908	
Lot 5, blk. 2, N.W section 34-40-22w4, Lamerton	Nov 30, 1908	
Lot 6, blk. 2, N W. section 34-40-22w4, Lamerton	Nov 30, 1908	
Lot 22, blk. 2, N W section 34-40-22w4, Lamerton	Nov 30, 1908	
Lot 23, blk 2, N W section 34-40-22w4, Lamerton	Nov 30, 1908	
Lot 24, blk. 2, N W section 34-40-22w4, Lamerton	Nov. 30, 1908	
Lot 25, blk 2, N W. section 34-40-22w4, Lamerton	Nov. 30, 1908	
Lot 28, blk. 2, N W section 34-40-22w4, Lamerton	Nov. 30, 1908	
Lot 29, blk. 2, N W section 34-40-22w4, Lamerton	Nov. 30, 1908	
N W section 28-22-22w4	Dec. 15, 1908	
N W. section 22-22-22w4	Dec. 15, 1908	
N.W. section 34-8-22w4	Jan. 12, 1909	
North of the river of the S.E. section 30-8-22w4.	Jan. 12, 1909	
S.E section 28-4-22w4	Jan. 12, 1909	
S.W. section 36-52-23w4	Nov 23, 1908	
N.E. section 26-56-23w4	Nov. 23, 1908	
N.E. section 34-50-23w4	Nov. 23, 1908	

FORFEITED LANDS.—*Continued*

LANDS	DATE OF APPROVAL OF RETURN BY JUDGE	DATE OF FINAL ORDER OF FORFEITURE
S E. section 16-38-23w4	Nov 30, 1908	
S W. section 6-51-23w4	Nov 23, 1908	
S.W. section 10-45-23w4	Nov 30, 1908	
N.E. section 28-46-23w4	Nov. 30, 1908	
N.W. section 22-46-23w4	Nov 30, 1908	
N.W. section 4-46-23w4	Nov 30, 1908	
S.W. section 2-44-23w4	Nov 30, 1908	
S.E. section 18-54-23w4	Nov 23, 1908	
S.W. section 18-54-23w4	Nov. 23, 1908	
S.W. section 34-38-23w4	Nov. 30, 1908	
N.W. section 16-38-23w4	Nov 30, 1908	
S.E. section 4-39-23w4	Nov. 30, 1908	
All south of the river of section 28-43-23w4	Nov. 30, 1908	
South of the river of the N W section 30-43-23w4	Nov 30, 1908	
Lot 4, blk 1, N.W. section 36-39-23w4, Alix	Nov. 30, 1908	
Lot 16, blk 1, N.W. section 36-39-23w4, Alix	Nov. 30, 1908	
Lot 21, blk 1, N.W. section 36-39-23w4, Alix	Nov 30, 1908	
Lot 16, blk 3, N.W. section 36-39-23w4, Alix	Nov 30, 1908	
Lot 17, blk 3, N.W. section 36-39-23w4, Alix	Nov 30, 1908	
Lot 20, blk 4, N.W. section 36-39-23w4, Alix	Nov 30, 1908	
Lot 9, blk 1, Village of Gleichen	Dec. 15, 1908	
Lot 10, blk 1, Village of Gleichen	Dec. 15, 1908	
Lot 11, blk. 1, Village of Gleichen	Dec 15, 1908	
N E. section 30-9-23w4	Dec 18, 1908	
East $\frac{1}{2}$ of the S E. of section 30-9-23w4	Dec. 18, 1908	
S.W. section 19-1-23w4	Jan 12, 1909	
S E. section 4-56-24w4	Jan. 14, 1905	Dec 18, 1907
East $\frac{1}{2}$ of the S W section 4-56-24w4	Jan 14, 1905	Dec. 18, 1907
N.W. section 28-55-24w4	Nov 23, 1908	
Lot 12, blk 2 in section 25-40-24w4	Nov 30, 1908	
N E section 24-37-24w4	Nov 30, 1908	
Lot 11, blk 3, Elm Park	Nov 23, 1908	
Lot 12, blk 3, Elm Park	Nov. 23, 1908	
Lot 22, blk 1, Village of Millet	Nov 23, 1908	
N.W. section 36-50-24w4	Nov 23, 1908	
N.W. section 10-41-24w4	Nov 30, 1908	
N.E. section 32-53-24w4	Nov. 23, 1908	
N.W. section 28-53-24w4	Nov. 23, 1908	
N.W. section 28-37-24w4	Nov. 30, 1908	
N.W. section 15-39-24w4	Nov 30, 1908	
South half of the S W. section 12-18-24w4	Dec 15, 1908	
L.S. 14 in section 6-14-24w4	Dec. 18, 1908	
N E. section 32-16-24w4	Dec 18, 1908	
S W. section 8-16-24w4	Dec 18, 1908	
N.W. section 6-1-24w4	Jan 12, 1909	
South of the river of the N W. section 7-3-24w4	Jan 12, 1909	
Pt west of Old Man River of S.E. section 4-10-25w4	Dec. 12, 1904	Dec. 18, 1907
South of the river of the N.W. section 24-52-25w4	Nov 23, 1908	
N.W. section 12-49-25w4	Nov 23, 1908	
S E. section 22-53-25w4	Nov 23, 1908	
N.W. section 32-37-25w4	Nov 30, 1908	
N.W. section 16-46-25w4	Nov 30, 1908	
N.W. section 18-56-25w4	Nov. 23, 1908	
N E section 26-51-25w4	Nov 23, 1908	
North half of the N E section 20-40-25w4	Nov 30, 1908	
S.E. section 30-47-25w4	Nov 30, 1908	
North of the river of the W $\frac{1}{2}$ section 15-52-25w4	Nov 23, 1908	
N.W. section 14-39-25w4	Nov 30, 1908	
N E. section 6-20-25w4	Dec 15, 1908	
W. $\frac{1}{2}$ of S.E. 7-20-25w4	Dec 15, 1908	
N.W. section 26-53-25w4	Nov 23, 1908	
S.E. section 20-53-25w4	Nov. 23, 1908	
Lot 5, blk. 2, Bremner Estate	Nov. 23, 1908	

FORFEITED LANDS.—*Continued.*

LANDS	DATE OF APPROVAL OF RETURN BY JUDGE	DATE OF FINAL ORDER OF FORFEITURE
Block 9, Bremner Estate	Nov. 23, 1908	
Blocks 15 and 16, Bremner Estate	Nov. 23, 1908	
Block 29, Bremner Estate	Nov. 23, 1908	
Block 37, Bremner Estate	Nov. 23, 1908	
Block 42, Bremner Estate	Nov. 23, 1908	
S W section 10-37-25w4	Nov. 30, 1908	
N E section 26-42-25w4	Nov. 30, 1098	
N W section 14-17-25w4	Dec. 15, 1908	
S E section 34-9-25w4	Dec. 18, 1908	
South of the river of the N E section 28-9-25w4	Dec. 18, 1908	
South half of the N W section 7-9-25w4	Dec. 18, 1908	
North half of the N W section 7-9-25w4	Dec. 18, 1908	
South half of the N E. section 19-12-25w4	Dec. 18, 1908	
S E section 19-12-25w4	Dec. 18, 1908	
S W section 6-8-26w4	Dec. 12, 1904	Dec. 18, 1907
S W section 5-9-26w4	Dec. 12, 1904	Dec. 18, 1907
N W section 24-1-26w4	Dec. 12, 1904	Dec. 18, 1907
Lot 2, section 24-53-26w4	Nov. 23, 1908	
Lot 3, section 24-53-26w4	Nov. 23, 1908	
N E section 24-50-26w4	Nov. 23, 1908	
South half of the S E. section 22-56-26w4	Nov. 23, 1908	
S E section 10-56-26w4	Nov. 23, 1908	
S W section 8-57-26w4	Nov. 23, 1908	
S W section 6-57-26w4	Nov. 23, 1908	
N E section 26-40-26w4	Nov. 23, 1908	
S E section 6-37-26w4	Nov. 30, 1908	
Lot 11, blk 3, Townsite of Morningside, sec. 35-41-26w4	Nov. 30, 1908	
Lot 22, blk 3, Townsite of Morningside, sec. 35-41-26w4	Nov. 30, 1908	
N W. section 22-17-26w4	Dec. 15, 1908	
S W section 24-6-26w4	Dec. 18, 1908	
S E section 18-8-26w4	Dec. 18, 1908	
N E section 6-8-26w4	Dec. 18, 1908	
N W. section 22-9-26w4	Dec. 18, 1908	
N E section 34-13-26w4	Dec. 18, 1908	
S E section 2-13-26w4	Dec. 18, 1908	
S W section 10-1-26w4	Jan. 12, 1909	
S E section 3-2-26w4	Jan. 12, 1909	
N W. section 24-53-27w4	Nov. 23, 1908	
S E section 14-57-27w4	Nov. 23, 1908	
N W. section 36-41-27w4	Nov. 30, 1908	
S W. section 4-11-27w4	Nov. 30, 1908	
S W section 26-42-27w4	Nov. 30, 1908	
N E section 22-42-27w4	Nov. 30, 1908	
S W. section 6-45-27w4	Nov. 30, 1908	
West of the river of the N W section 18-38-27w4	Nov. 30, 1908	
West of the river of the S W. section 18-38-27w4	Nov. 30, 1908	
S W section 32-40-27w4	Nov. 30, 1908	
S E section 25-40-27w4	Nov. 30, 1908	
E. half section 5-20-27w4	Dec. 15, 1908	
S W section 34-20-27w4	Dec. 15, 1908	
S E section 13-32-27w4	Dec. 15, 1908	
S E section 6-6-27w4	Dec. 18, 1908	
N E section 18-14-27w4	Dec. 18, 1908	
S E. section 34-1-27w4	Jan. 12, 1909	
S E section 2-6-27w4	Dec. 18, 1908	
N W section 4-38-28w4	Nov. 30, 1908	
S E section 30-35-28w4	Nov. 30, 1908	
S E. section 2-40-28w4	Nov. 30, 1908	
East of the river of the S E section 18-20-28w4	Dec. 15, 1908	
S E section 36-24-28w4	Dec. 15, 1908	
S E section 23-34-28w4	Dec. 15, 1908	
S W. section 32-9-28w4	Dec. 15, 1908	
West of Willow Creek of N.W. section 12-13-28w4	Dec. 18, 1908	

FORFEITED LANDS.—*Continued*

LANDS	DATE OF APPROVAL OF RETURN BY JUDGE	DATE OF FINAL ORDER OF FORFEITURE
N.W. section 36-14-28w4	Dec 18, 1908	
East of the river of the S.E. section 30-9-28w4	Dec 18, 1908	
Pt south of Pincher Creek of E $\frac{1}{2}$ sec 2-7-29w4	Dec. 12, 1904	
South half of the N W. section 12-21-29w4	Dec. 15, 1908	
S E section 14-34-29w4	Dec. 15, 1908	
W $\frac{1}{2}$ of N E section 28-11-29w4	Dec. 18, 1908	
N E. section 17-11-29w4	Dec 18, 1908	
S E. section 17-11-29w4	Dec 18, 1908	
N W section 34-16-29w4	Dec 18, 1908	
N.E. section 26-16-29w4	Dec 18, 1908	
N W section 36-5-30w4	Dec 18, 1908	
S.E. section 12-7-30w4	Dec. 12, 1904	Dec. 18, 1907
South half of the N W section 12-13-30w4	Dec 18, 1908	
N W section 9-6-30w4	Dec 18, 1908	
S W section 10-7-30w4	Dec. 18, 1908	
Lot 13, blk 4 in S E section 22-24-1w5	Oct 15, 1902	Dec 18, 1907
Lot 4, blk. 29, in section 10-24-1w5	Oct. 15, 1902	Dec. 18, 1907
N W section 25-52-1w5	Nov. 23, 1908	
S E section 4-53-1w5	Nov 23, 1908	
N W section 6-53-1w5	Nov 23, 1908	
S.W. section 1-53-1w5	Nov 23, 1908	
N.E. section 26-52-1w5	Nov 23, 1908	
S W section 8-52-1w5	Nov. 23, 1908	
S.E. section 6-55-1w5	Nov. 23, 1908	
S.W. section 27-37-1w5	Nov 30, 1908	
S.W. section 36-38-1w5	Nov 30, 1908	
S E section 27-36-1w5	Nov. 30, 1908	
S.W. section 27-36-1w5	Nov 30, 1908	
N.W. section 12-43-1-w5	Nov 30, 1908	
Lots 15 and 16 in block 1, section 23-40-1w5	Nov 30, 1908	
S.W. section 34-22-1w5	Dec 15, 1908	
Blk. H in S.E. 32-24-1w5	Dec 15, 1908	
Lot 10, blk. 4, Plan 3946 N	Dec 15, 1908	
Lot 1, blk. 5, Plan 3946 N	Dec 15, 1908	
N.W. section 10-39-1w5	Nov 30, 1908	
Lot 20, block 2, Townsite of Crossfield	Dec 15, 1908	
Lot 9, block 2, Townsite of Crossfield	Dec 15, 1908	
Lot 10, block 2, Townsite of Crossfield	Dec. 15, 1908	
Lot 24, block 2, Townsite of Crossfield	Dec 15, 1908	
Lot 6, block 5, Townsite of Crossfield	Dec 15, 1908	
E half section 3-21-1w5	Dec. 15, 1908	
S.E. section 18-25-1w5	Dec. 15, 1908	
N.W. section 2-55-2w5	Nov. 23, 1908	
Lot 7, blk 4, in 7-38-2w5, Village of Evarts	Nov. 30, 1908	
Lot 8, blk. 4, in 7-38-2w5, Village of Evarts	Nov 30, 1908	
Lot 9, blk. 4, in 7-38-2w5, Village of Evarts	Nov. 30, 1908	
N E. section 13-54-2w5	Nov 23, 1908	
North of the river of the S.E. section 30-51-2w5	Nov. 23, 1908	
N.E. section 26-52-2w5	Nov. 23, 1908	
S W section 12-55-2w5	Nov 23, 1908	
S.W. section 32-43-2w5	Nov 30, 1908	
South of the river of the N.E. section 19-18-2w5	Dec 15, 1908	
South of the river of the N.E. section 17-18-2w5	Dec 15, 1908	
N W. section 18-18-2w5	Dec 15, 1908	
S E section 26-19-3w5	Oct. 29, 1901	Dec. 18, 1902
N.E. section 32-22-3w5	Dec 15, 1908	
N.W. section 36-35-3w5	Nov. 30, 1908	
N.W. section 22-27-3w5	Dec. 15, 1908	
S.E. section 36-34-3w5	Dec. 15, 1908	
Lot 2, Lac Ste. Anne, in 54-4w5	Nov 23, 1908	
Lot 3, Lac Ste. Anne, tp. 54-4w5	Nov. 23, 1908	
N.W. section 22-24-4w5	Dec. 15, 1908	
N. of the river of the N.E. section 5-26-4w5	Dec. 15, 1908	

FORFEITED LANDS —*Continued*

LANDS	DATE OF APPROVAL OF RETURN BY JUDGE	DATE OF FINAL ORDER OF FORFEITURE
S E section 36-25-5w5	Dec 15, 1908	
Lot 9, blk B, adjoining Townsite of Carstairs	Dec 15, 1908	
S E section 34-6-1w5	Dec. 18, 1908	
W half section 22-6-1w5	Dec. 18, 1908	

COLLECTION OF EDUCATIONAL TAXES.

The total assessment levied under The Educational Tax Act for the year 1909 was \$144,539 79 and the total amount collected during the year was \$93,067 87. The collection under this Act during the year 1910 should show an increase over that of previous years on account of the forfeiture proceedings now being taken for the first time under this Act.

In conclusion I may point out that, as stated in my report for the year 1908, the great problem in connection with the work of this branch is that of assisting and advising the small local improvement districts in their work so that they may get the best possible returns for the assessment levied. A good deal of progress has, I think, been made in this matter, and these districts are now getting better returns for their assessments than was previously the case. When it is taken into consideration that the total assessment levied by the small local improvement districts of the province amounts to considerably over half a million dollars each year, it will be realized that this is an important matter, as such an amount properly handled should accomplish a good deal in the way of road improvement each year.

Your obedient servant,
JNO PERRIE,
Tax Commissioner.

THE STEAM BOILERS BRANCH

Inside Staff One Clerk in charge and one Stenographer.
Outside Staff Four Inspectors.

The following is a report of the work done in connection with the administration of The Steam Boiler Act for the year ending December 31st, 1909.

Mr. Nathaniel Marshall was appointed an inspector, with headquarters in Lethbridge, during January, in order to lighten the work of Inspector Buxton, whose district was too large.

During January the Board of Inspectors formulated a set of Boiler Rules for the construction and inspection of steam boilers. These were intended to take effect on May 1st, but after considering the appeal of a delegation of the portable boiler and engine section of the Manufacturers' Association, this date was extended until October 1st, in order that the manufacturers could dispose of their surplus stock. These rules, which were compiled from the best authorities, were generally accepted by those interested as a very

necessary measure. A delegation of experts and representatives from the boiler section of the Manufacturers' Association was appointed to confer with our inspectors, to have these rules explained, and they left with a thorough understanding of the same.

After considerable correspondence between the Province of Saskatchewan and this department upon the subject of uniform boiler rules, particularly with regard to details governing the construction of traction and portable engines for agricultural purposes, it was decided to arrange a conference between the inspectors of the two provinces for this purpose. Considerable interest was also shown by other provinces in the matter, and also by the Manufacturers' Association, it being considered essential by all concerned that uniform regulations should, if possible, prevail throughout the Dominion, and thus obviate the confusion which would surely arise, providing each province adopted a separate system of rules, particularly those pertaining to the construction of boilers.

Accordingly, a conference open to representatives from every province in the Dominion was arranged, and on December 1st delegates assembled at Regina as follows:

Ontario: D. M. Medcalf, Toronto

Manitoba: Chas. H. Dancer, Winnipeg; H. A. Bowman, Winnipeg.

Alberta: Jos. Buxton, Calgary; David Fraser, Strathcona; F. W. Hobson, Red Deer; Nat. Marshall, Lethbridge.

Saskatchewan: B. M. Smyth, Moose Jaw; Thos. Inglis, Regina; Wm. Mayhew, Whitewood; R. N. Blackburn, Estevan.

British Columbia: J. Peck.

J. W. Harkom, of Richmond, Que., was present representing the Canadian Manufacturers' Association.

The result of the conference was that boiler rules were formulated similar to those already in use in Alberta.

During the year 92 advertised examinations were held, and 986 candidates presented themselves for registration, 146 of whom failed. Second provisional certificates were granted to 77 candidates, who failed for final certificates.

Under sub-sec. 3 of sec. 29 of the Act, 66 provisional certificates were renewed for engineers who were unavoidably absent from examinations.

No accidents from defective boilers were reported during the year.

There were 11 prosecutions for violation of the Act, and in each case a conviction was obtained. For carelessness in handling his boiler, one engineer was deprived of his certificate, and another engineer had his certificate cancelled indefinitely on account of being intoxicated while on duty.

Owing to the inspectors losing valuable time while compiling the boiler rules at Edmonton and Regina, and also the heavy demand made on their time by the candidates for engineers' certificates, they were unable to inspect as many boilers as was anticipated. The phenomenal increase of both stationary and portable boilers in the province makes it impossible to do justice to the work without an increase of the outside staff, and now that high pressure boilers are universal, too much care cannot be exercised.

Mr. J. T. Lunn, who was appointed to examine candidates for engineers' certificates calling at the department, passed 2 first, 10 second, 16 third, 37 provisional, and 2 second provisional certificates.

The following are the names and addresses of the inspectors:

Jos. Buxton
David Fraser
F. W. Hobson
Nat. Marshall

Calgary.
Strathcona.
Red Deer.
Lethbridge.

A consolidated summary, compiled from the inspectors' reports, showing the total number of defects found in boilers throughout the province, is as follows:

Defects	Hor Tub	Hor Fur.	Ret Tub.	Loco. Fire- box	Up- right Tub	Water Tube	Total
Shell and drum	10		6	3	3		22
Dome					1		1
Front tube sheet	4		8	86		9	89
Back tube sheet	4			37		7	48
Top tube sheet				6	7		13
Bottom tube sheet					1		1
Firebox side sheet (inside)				24			24
Firebox side sheet (outside)				4			4
Crown sheet			2	21			23
Saddle sheet				5			5
Inside W.B. sheet				10			10
Outside W.B. sheet							
Back sheet				13			13
Face plate				19			19
Throat sheet				3			3
Foundation and door rings				21			21
Stay bolts				25	1		26
Crown stays		2	1	39	3		45
Longtdl. stays			6	1			7
Leaking seams	6		3	11	4		24
Diagonal stays	1			2			3
Rivets	5	3	6	20			34
Main flue			1				1
Tubes	6	4	9	20	17	2	58
Handholes and manholes	4	8	2	63	13		90
Studs and bracket attachments	1		7	58			66
Safety valves	15	12	26	123	30		206
Steam gauges	5	10	19	130	22	2	188
Water gauge fittings	19	13	24	138	16		210
Blow down	7	8	6	100	31		152
Fusible plug	14	10	15	70	1	10	120
Settings	18	12					30
Heavy Scale	12	6	1	10	4		33
Totals	131	88	142	1,044	154	30	1,589

In the above tabulated statement there are a noticeable number of defects occurring in certain types of boilers that have been inspected during the year. These are mainly due to poor design, workmanship and material in traction and portable agricultural and sawmill steam plants, such as have been supplied to the steam users of Alberta up to the end of last September. Owing to the number of deficiencies in this class of plant, the department felt compelled to interfere and demand that a material change be made in order to afford the farmers and lumbermen better value when purchasing, and the general public at large greater protection for life and property.

The majority of the boilers constructed in the past have been also far too light to withstand the rough usage to which they are subjected, and it is by careful inspection and a rigid enforcement of the Act with regard to engineers that a large number of disastrous accidents have been averted.

For the purposes of comparison, the following details are given as showing the method of past construction: Shell plates $\frac{1}{4}$ inch thick; single and double-riveted lap joints, with all rivet holes punched full size; $\frac{1}{4}$ in and 5-16 in tube sheets, having punched tube holes and handholes punched full size, the burrs being left on; tubes not headed; $\frac{3}{4}$ in stay-bolts; $\frac{1}{4}$ in crown and side sheets and furnace casings; cast iron domes, door and foundation rings; heavy cast iron stub axle brackets and gearing and engine brackets, all lined up with white metal liners and attached to the light shell plates (not reinforced) by cap screws, the boiler being punched full of holes for this purpose.

The above details indicate the amount of trouble prevailing amongst the farmers during the threshing and plowing seasons, at a time when a breakdown means a heavy loss. A large number of comparatively new boilers inspected during the year showed dangerously inferior workmanship, such as badly designed and finished joints, defective riveting, inadequate staying, punched tube holes left in the rough, tubes not beaded, punched handholes left in the rough, badly fitting cast iron doors, etc., the whole equipped with cheap, unreliable fittings, which were in a great many cases badly located, and rendering the whole outfit doubly dangerous.

From June 1st to December 31st drawings and specifications to the number of 112 were submitted to the department, and of these 30 were approved. Some 700 letters were written by the department in this connection alone. For all approved designs a record number is allotted, together with additional precautions for identification purposes when the approved boiler enters the province.

A large majority of the defects referred to above have been eliminated by the rules, and boilers entering the province since their adoption contain heavier shell and furnace plates, a good quality of material, good workmanship, well designed joints, the whole being efficiently stayed and reinforced throughout. All bracket attachments are fixed securely to reinforced sheets, and in a number of cases these have been displaced by extension boiler plate frames and angle irons, making a much lighter, neater, and more substantial machine all round.

Where a pressure exceeding 100 pounds is required, no cast iron boiler fittings are allowed, and within these limits the conditions are limited to certain points. Provision has also been made in every case to allow the boilers to be thoroughly cleaned and inspected, by increasing the number of manholes, handholes and washoutholes, also by distributing them to better advantage.

Cheap, inadequate boiler fittings no longer pass inspection, and only the best design and quality of fittings are allowed. The difference in cost between the poorest and the best is so slight in this western province that the steam users get a decided advantage by being offered the best on the market. This is also the general opinion throughout Alberta by those interested in this class of goods.

Owing to the very recent enforcement of the new rules, the benefit arising from them is not at present widely felt, only a few boilers built and approved under these regulations having entered the province, but the marked change between these and the former practice is easily discernible by anyone not familiar with a steam boiler, and is now favourably commented upon by the public.

It is expected that there will be a large increase in the number of boilers in the province this year, a large number of intending purchasers having waited for the approved type of machinery now coming in.

A schedule of certificates issued and fees collected, inspectors' annual reports, and list of final certificates issued to December 31st are appended:

	1908	1909
Number of certificates issued for boilers inspected	671	738
Number of advertised examinations for engineers held	70	92
Number of first class certificates issued	12	7
Number of second class certificates issued	43	28
Number of third class certificates issued	391	314
Number of provisional certificates issued	357	562
Number of second provisional certificates issued.	43	77
Number of renewals of provisional certificates	35	66
Number of permits issued	11	34

FEES COLLECTED

	1908	1909
For inspection of boilers	\$3,259 00	\$3,561 00
For final certificates under section 28	126 00	95 00
For examination of engineers for final certificates	1,569 00	2,105 00
For provisional certificates	2,203 00	2,515 00
For second provisional certificates	201 00	385 00
For renewal of provisional certificates.	85 00	165 00
For permits issued	51 00	170 00
	\$7,745 00	\$8,996 00

EXPENDITURE

For the year ending December 31, 1909, in connection with the administration of The Steam Boilers Act	\$10,611 03
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RED DEER, January 2, 1909.

JOHN STOCKS, Esq.,
Deputy Minister of Public Works,
Edmonton

SIR,—I have the honour to submit to you the following report of work done in this district under The Steam Boilers Act for the year 1909, in compliance with section 9

From January 5th until February 24th I attended a meeting of the Board of Inspectors, held in Edmonton, for the purpose of arranging new question papers for engineers' examinations, considering questions relating to a better administration of The Steam Boilers Act, and also to formulate regulations for the construction and inspection of steam boilers. From May 5th until May 16th I was present at a meeting of the manufacturers' representatives and the department, held in Edmonton, to draw up an interpretation of the regulations governing boiler construction. I am pleased to say that since the new regulations came fully into effect last October, they have worked smoothly and satisfactorily in this district, there being a feeling amongst steam users and manufacturers that these regulations are of great value, and will also provide for increased safety to the public of this province.

Since May 16th I have surveyed 59 designs for boilers and accessories intended for use in Alberta, and four blue prints of steam mains and connections designed for new power plants, all submitted under Rules 30 and 36. The major part of this work has been done while away from headquarters.

The following is a list of boilers inspected by me during the year:

Total number inspected	193
Total number visited	199
These are rated:	
Good	141
Very fair	38
Fair	10
Reduced to 20 pounds	4
Total	193

One of the latter condemned boilers ruptured while under test at 95 pounds pressure, and the whole four were found in a dangerous condition

The following table shows the type of boilers inspected:

Horizontal tubular	40
Horizontal furnace	5
Return tubular	18
Vertical tubular	9
Loco. firebox	120
Water tube	1

The following is a list of defects found during these inspections:

Detailed Report of Defects found in Boilers for 1909.

Defects in	Hor Tub	Hor Fur	Ret Tub.	Loco. Fire- box	Up- right Tub.	Water Tube	Total
Shell and drum	2		1	3	3		9
Dome				1			1
Front tube sheet	3			5			8
Back tube sheet	2			2			4
Top tube sheet					4		4
Bottom tube sheet					1		1
Firebox side sheets (inside)				5			5
Firebox side sheets (outside)							
Crown sheet			2	8			10
Saddle sheet				1			1
Inside wet bottom sheet				3			3
Outside wet bottom sheet							
Back sheet				1			1
Faceplate							
Throat sheet				1			1
Foundation and door rings				1			1
Staybolts				10	1		11
Crown stays			1	15			16
Longtdl stays							
Leaks at seams	3			7	1		11
Diagonal stays	1			2			3
Rivets	5	3		5			13
Main flue			1				1
Tubes	5	1		8	5		19
Handholes and manhole	3			7			10
Stud and bracket attachments			2	14			16
Safety valve	5		4	27	1		37
Steam gauge	3		3	19			25
Water gauge fittings	7	2	2	40			51
Blow down	4			4			8
Fusible plug	13		1	3			17
Defective settings	8						8
Heavily scaled	2			2			4
	66	6	17	194	16		299

Twenty-two advertised examinations have been held in this district during the year, and 94 candidates were examined for final license, 88 third class, and 6 second class. 46 of the former failed to show the necessary qualifications for third class license, and three were unsuccessful for second class. 92 provisional certificates have been issued throughout the district, 17 being renewals. The reason for such a high percentage of third class candidates failing to obtain the rating is mainly owing to the examination questions combining both stationary and portable and traction work, thus covering too much ground, and is not satisfactory to those whose experience is confined to any one branch of the business.

On November 27th I left Red Deer for Regina, Sask., according to your instructions, and together with the Board of Inspectors for this Province met with delegates from British Columbia, Saskatchewan, Manitoba, Ontario, and the Manufacturers' Association, until December 16th. This conference was arranged with an endeavour to combine the present regulations governing boiler construction and inspection of the several provinces, and if possible arrive at a uniform set of rules to be used throughout the Dominion.

I have the honour to be, Sir,

Your obedient servant,

F. W. HOBSON,

Inspector of Steam Boilers,
Red Deer, Alta

STRATHCONA, December 31, 1909.

JOHN. STOCKS, Esq.,

Deputy Minister of Public Works,

SIR,—I have the honour to submit my annual report for the year 1909 as Inspector of Steam Boilers, in accordance with Sec 9 of The Steam Boilers Act

During the month of January the inspectors were together in Edmonton formulating a set of rules to be used as a standard for inspectors of steam boilers throughout the province, so that each inspector would be able to rate all boilers uniformly with the rating of another inspector in a different part of the province, and also to be used as a guide for manufacturers in getting out their designs of boilers, thereby establishing some degree of uniformity with the different manufacturers, and also to be a check on manufacturers in supplying the market with boilers of an inferior grade in either workmanship or materials.

The application of these rules called forth considerable adverse criticism from the manufacturers, and as a result we were called together to meet a delegation from the manufacturers on May 6th, to discuss with them some modifications, so as to enable a certain class of boilers, at that time on their hands, to come into the province, if certain provisions were complied with; then, on October 1st, the rules would come into full force and effect regarding all classes of boilers. These requests were conceded by the department.

Section 36 of these rules has created a great deal of extra work in surveying drawings from the manufacturers, and a very considerable part of my time has been taken up with this work, thereby preventing my being able to accomplish little more than half the usual amount of inspections.

A great many letters of a technical nature relating to these drawings and specifications had to be attended to personally.

On December 1st a meeting was convened in Regina, at which representatives were present from different provinces interested in boiler inspection, Ontario sending one delegate, Manitoba two, Saskatchewan four, Alberta four, British Columbia one, and the Canadian and American manufacturers one.

This meeting was called the Inter-Provincial Boiler Conference, and was for the purpose of devising some means whereby a uniform set of rules might be compiled that would be acceptable to each of the provinces represented, and also to the manufacturers both in Canada and the United States. This meeting continued in session until December 15th, and resulted in the collaboration of a set of rules in many respects similar to those already in use in Alberta; but as a result of experience gained during the use of these Alberta rules, together with an exchange of ideas and considerable discussion of the merits and demerits of these rules and of other standard recognized authorities, the new rules are much more complete, and, if ratified by the different Governments represented at the conference, will be the means of eliminating considerable friction between manufacturers and Government officials, that would occasionally crop up through misunderstandings between these parties in interpreting and in carrying out details of different Provincial rulings on the subject.

The following is a list of boilers inspected and their condition:

Number of boilers inspected for which certificates were issued	153
Number of boilers visited for which no certificates were issued	16
General condition of boilers at time of inspection.	
Good	115
Fair	38
New fittings or repairs ordered	122
Horizontal tubular boilers inspected	53
Return tubular boilers inspected	14
Locomotive firebox type boilers inspected	53
Upright tubular boilers inspected	27
Horizontal internal furnace tubular boilers inspected	5
Water tube boilers inspected	1

Detailed Report of Defects in Different Types of Boilers.

Defects in	Hor. Tub.	Ret. Tub.	Loca Fire- box	Up- right Tub.	Water Tub.	Total
Back tube sheet	2		2			4
Blow-off cocks		3	5	2		10
Bracket attachments	1					1
Crown stays		2				2
Crown sheet		1	2			3
Front tube sheet	1					1
Foundation and door rings			2			2
Face plate			3			3
Handholes	1			1		2
Inside W bottom sheet			1			1
Safety valves	4	2	5	5		16
Safety plug	1	2	2	1		6
Scaled (heavily)	6		2	4		12
Settings	4					4
Seams, leaky	1		2			3
Shell	4					4
Stays, longitudinal			1			1
Side sheets, inside			2			2
Side sheets, outside			1			1
Stay bolts			5			5
Steam gauge		2	5	3		10
Studs on brackets			1			1
Tubes			1	7		9
Water gauge fittings	8	3	6	2		19
	23	15	48	25	1	122

During March and April I held 18 advertised examinations at principal points throughout the district, and again during August and September at 16 points; but I consider that both spring and fall examinations were held too late for the convenience of applicants.

I think the examinations should finish up not later than March 1st and August 1st. This would give traction engineers an opportunity of taking examinations in time to be in possession of their certificates before plowing and threshing commences.

The number of candidates who wrote for final certificates was 91; and 77 applicants were granted provisional certificates.

Six permits were issued to enable owners to keep their machines going during temporary absence of qualified engineers.

There were no serious accidents reported through defects in boilers or other machinery.

One engineer had his certificate suspended for one year, for being under the influence of liquor while in charge of a steam plant. The information which led to this step being taken was laid by the owners of the plant, and during the investigation of the charge evidence was submitted proving that the plant was subsequently operated by an apprentice who had no certificate.

This case was given into the hands of a J. P., who imposed a fine of \$10.00 and costs upon both owner and engineer, both parties pleading guilty to the charge.

Several other cases of illegal operation were reported to me, but upon investigation, there appeared no grounds for prosecution.

I have the honour to be, Sir,

Your obedient servant,

DAVID FRASER,

Inspector of Steam Boilers

LETHBRIDGE, December 31, 1909.

JOHN. STOCKS, Esq.,

Deputy Minister of Public Works.

SIR,—I have the honour to submit to you my annual report as Inspector of Steam Boilers for the year ending December 31st, 1909.

I was appointed an inspector for the southern division in January, 1909, with headquarters at Lethbridge. I started out immediately in the coal mine district, and found work very much on the increase. New mines were opening up (McGillivray Creek, Western Canada Coal Co., Blairmore, etc.); new industries begun at Blairmore (cement works and brick works); and the older mines were installing new plants (Coleman, Frank, Blairmore, etc.).

After holding examinations in March at various points, work on the prairies took my attention, and there, also, the increase of steam outfits was very great.

I was recalled, with the other inspectors, to Edmonton, to meet the manufacturers' representatives, with the view of a fuller explanation of our rules, and this gave a better understanding all round. The manufacturers' representatives admitted that the rules were sound and practicable, and it was agreed that all firms should live up to them.

On my return south I inspected in the prairie district, and there was sufficient work in the south and south-west to keep me busy till November, with the exception of a few trips for special work at Coleman and Frank. This branch of inspection shows a tremendous increase, settlers from the States arriving daily with steam outfits and well-drilling plants. I have only been able to inspect, methodically, the districts mentioned, and there remains at least two-thirds of the district untouched. It is impossible for me to estimate, approximately, the number of boilers which remain to be inspected, but the following towns, not to mention their outlying districts, I have not seen yet: Lille, Bellevue, Passburg, Lundbreck, Cowley, Pincher Creek, Brockett, Macleod, Granum, Claresholm, Stavely, Parkland, Rocky Coulee, Carmangay, Cleverville, Bowville, Iron Springs, Sundial, etc.; also from Taber to the Saskatchewan boundary.

The new rules for the construction of boilers are, on the whole, appreciated, especially by those with any mechanical ideas; while the rules governing the operation of boilers are looked upon as none too stringent by employers.

A conference was held in December at Regina with a view to the adoption of uniform rules, and so simplifying matters for manufacturers, buyers and inspectors. If the rules that were drafted at this conference become binding in all the provinces, it will be a matter of general satisfaction. A representative of a large eastern firm remarked to me that they "did not mind how strict the rules were made so long as the same were enforced all round." It appears to me that there is a general desire at all points for thoroughness.

The following tables give the number and condition of boilers inspected, and also the defects found in the same:

Types Inspected.

H R. tubular	41
Loco. type	123
Horizontal furnace	17
Upright tubular	30
Water tube	11
Total	222

Condition of Boilers Inspected.

Moderate	8
Fair	74
Good	64
Very good	73
Condemned	3
Total	222

Detailed Report of Defects Found During 1909.

Defects in	Hor. Fur.	Ret. Tub.	Loco Fire- box	Up- right Tub.	Water Tub.	Total
Shell and drum		5				5
Dome						
Front tube sheet		6	60			75
Back tube sheet			30			37
Top tube sheet			6			6
Bottom tube sheet						
Firebox S. Sheets (inside)			11			11
Firebox S. sheets (outside)						
Crown sheet			7			7
Saddle sheet						
Inside wet bottom			3			3
Outside wet bottom						
Back sheet			6			6
Face plate			10			10
Throat sheet			2			2
Foundation rings			12			12
Screw stays			10	3		13
Crown stays			4			4
Longtl. stays		6				6
Diagonal stays						
Rivets		6	15			21
Main flue						
Tubes		6	3	3	2	12
Handholes and manholes	8		50	8		66
Studs and brackets			10			10
Safety valves	8	14	71	21		114
Steam gauges	8	10	71	12		101
Water gauge fittings	8	16	67	6		97
Blow-off cock	8		71	21		100
Fusible plug	8	10	60		10	88
Defective setting		12				12
Heavily scaled		3				3
Condemned			2			2
	48	94	581	74	28	825

Arrangements were made to hold examinations for Engineers' Certificates at 19 different points. Owing to the great influx of settlers with steam outfits, it was found necessary to continue examinations for ten consecutive days in Lethbridge. The total number examined was 372, the results being as follows:

134 obtained third class certificates.

10 obtained second class certificates

1 obtained first class certificate

222 obtained provisional certificates

5 complete failures.

372 total.

I issued nine permits during the year under Sec. 34 of the Act. There has been no accident or casualty reported to me in the district. One case of gross carelessness in handling an engine came under my notice, and the engineer had his certificate cancelled

I have the honour to be, Sir,

Your obedient servant,

NAT. MARSHALL,

Inspector of Steam Boilers.

CALGARY, December 31, 1909

JOHN. STOCKS, Esq.,

Deputy Minister of Public Works

SIR,— I have the honour to submit my annual report for the year 1909, as Inspector of Steam Boilers, in accordance with Sec. 9 of The Steam Boilers Act.

The number of boilers inspected by me during the year was 189, classed as follows:

Horizontal tubular	37
Horizontal flue	3
Horizontal furnace	3
Water tube	18
Locomotive firebox type	98
Return tubular	4
Upright	26
Total	189

Condition of Boilers Inspected

Good	154
Very fair	28
Fair.	7

Owing to the many applicants for engineers' certificates this year, it has been impossible to do much inspecting in the outlying districts. There are 160 boilers on record in my district that were not inspected in 1909. The work of inspecting is progressing favourably, but owing to the number of boilers which are coming into my district it has been impossible to get around to them all. Favourable comment has been made on the changes which were ordered on a good many boilers, so that they will comply with the rules.

Defects in Boilers Inspected During 1909.

Defects in	Hor. Tub.	Hor. Fur.	Ret. Tub.	Loco. Fire- box	Up- right Tub.	Water Tub.	Total
Shell and drums	4					1	5
Front tube sheet			2	3			5
Back tube sheet				3			3
Top tube sheet					3		3
Firebox side sheets (inside)				6			6
Firebox side sheets (outside)				3			3
Crown sheets				6			6
Saddle sheets				4			4
Inside W. B. sheet				3			3
Back sheets				6			6
Face plate				6			6
Door rings				6			6
Stay bolts				10			10
Crown stays				8			8
Leaking seams	2		3	2	3		10
Boilers re-tubed	1	3	3	8	2		17
Hand holes			2	6	4		12
Stud and bracket attachments			5	33			38
Safety Valves	6	2	3	20	8		39
Steam gauges	2	2	4	35	7	2	52
Water gauge fittings	4	3	3	25	8		43
Blow-down	3		3	20	8		34
Fuse plug			2	7			9
Defective settings	6						6
Heavily scaled	4	3	1	6			14
	32	13	31	226	43	3	348

I may say there is quite a noticeable change for the better in the class of steam gauges now being furnished by the manufacturers.

During the year I held 17 examinations at different points in my district. There were sixty applicants for final certificates, as follows:

First class	2
Second class	3
Third class	55
Total	60

Of the above number who came up for examination, the results were as follows:

First class	0
Second class	2
Third class	43
Total	45

At the examinations held, the candidates who failed were recommended for a lower class certificate, and in some cases second provisional certificates were issued to them.

During the year there were two hundred applicants for provisional certificates, and the renewal of same, and out of this number 116 were recommended

Under Section 34 of the Act one permit was issued.

No accidents have been reported to me caused by any defects in boilers or their connections

I have the honour to be, Sir, your obedient servant,

JOS. BUXTON,

Inspector of Steam Boilers.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.

NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>First Class</i>			
Archibald, Harry P	Lethbridge	*24	Aug 15, 1900
Altham, Geo H.	Lethbridge	23	Apr. 8, 1908
Aitken, Robert C	Edmonton	15	June 29, 1907
Brisette, Narcisse	Morinville	*15	Mar 28, 1899
Buxton, Jos	Calgary	*35	Aug 29, 1901
Birkett, Holland G	Cardston	9	Sept 5, 1906
Briggs, Thos. L	Calgary	10	Sept 27, 1906
Birrell, Andrew D	Nanton	26	Aug 28, 1908
Banks, Henry H	Macleod	31	Dec 14, 1908
Broughton, John Wm	Red Deer	34	Mar 17, 1909
Cross, Wm	Calgary	*2	Mar. 28, 1899
Cooper, Watt	Canmore	6	Aug. 11, 1906
Caldwell, Robt	Edmonton	*41	Oct. 16, 1903
Cross, Isaac F	Ponoka	*47	Oct. 15, 1904
Cope, Cuthbert E	Edmonton	24	Apr 22, 1908
Christie, Alex'r G	Exshaw	19	Jan. 20, 1908
Collard, Albert N	Moose Jaw	21	Mar 26, 1908
Davidson, James	Edmonton	38	Sept 13, 1909
Evans, Dan	Edmonton	*12	Mar 28, 1899
Ewing, David	Stratheona	36	May 3, 1909
Fraser, David	Stratheona	*20	Oct 9, 1899
Finch, Theo S	Raymond	5	Aug 10, 1906
Gale, Ernest A	Calgary (dup)	29	Dec 11, 1908
Hubbard, Sydney T	Edmonton	*46	Apr 18, 1904
Heist, Wm E	Edmonton	*36	Dec 18, 1901
Hobson, Francis W	Stratheona	*50	Apr 1, 1905
Hill, John	Edmonton	25	June 25, 1908
Isaac, Wm	Calgary	14	June 20, 1907
Jackson, John A	Stratheona	*25	Oct. 23, 1900
Jones, Herbert W	Bellevue	30	Dec 11, 1908
Kelly, John	Edmonton (no record)		Dec. 3, 1905
Kearsley, Geo	Edmonton	8	Sept 5, 1906
Lunn, John T	Edmonton	*53	May 26, 1905
Moore, Geo	Frank	*55	July 21, 1905
Marshall, Jas Wm	Calgary	20	Jan 20, 1908
Marshall, Nathaniel.	Edmonton	32	Feb 7, 1909
McCall, Jas. F	Calgary	7	Aug 11, 1906
McFee, Norman	Red Willow	*48	Nov. 22, 1904
McClymont, Jas. D	Edmonton	27	Sept 18, 1908
McNaughton, Peter	Edmonton	*21	Oct 9, 1899
Niven, Robt	Lethbridge	*23	July 28, 1900
O'Donnell, John E	Edmonton	37	July 5, 1909
Ritchie, Wm Jas	Canmore	4	May 15, 1906
Rice, John H	Calgary	1	April 30, 1906
Reid, Arthur.	Lethbridge	11	Jan 9, 1907

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act —*Continued.*

NAME	ADDRESS	NO OF CERT.	DATE OF ISSUE
<i>First Class —Continued</i>			
Scott, John	Lethbridge	*14	Mar. 28, 1899
Stapley, Tobias B	Edmonton	*45	Apr. 18, 1904
Shearer, Arthur	Hillcrest	16	Aug. 28, 1907
Stafford, David G	Coleman	35	Mar. 30, 1909
Scott, James	Lille	22	Apr. 7, 1908
Turgeon, Cleophas	Edmonton	*5	Mar. 28, 1899
Taylor, Geo. R	Strathcona	*11	Mar. 28, 1899
Turner, Ornelo H	Calgary	*34	July, 1901
Tanner, Harry P	Taber	18	Dec. 26, 1907
Todd, Wm	Edmonton	33	Mar. 4, 1909
Watson, Wm. D.	Bankhead	3	May 15, 1906
Watson, John T.	Calgary	13	June 7, 1907
White, E. Lionel	Calgary	12	April 6, 1907
<i>Second Class.</i>			
Anderson, C. J. B	Calgary	*109	Feb. 7, 1901
Angus, Robt	Angus Ridge	*160	Oct. 2, 1901
Alderson, Robt	Coleman	126	Apr. 22, 1908
Adair, Fred D	Edmonton	30	May 10, 1906
Allworth, E. Mortimer	Okotoks	81	June 19, 1907
Bawtinheimer, Geo. H	Red Deer	*7	Sept. 4, 1899
Biery, Chas	Strathcona	*32	Mar. 9, 1900
Blatchford, K. A	Edmonton	*88	Oct. 23, 1900
Blain, J. W	Strathcona	*106	Dec. 31, 1900
Bannerman, Jas. A	Red Deer	*162	Dec. 18, 1901
Brownlow, Hy. A	Lacombe	*163	Dec. 23, 1902
Brewster, W. A	Edmonton	*195	May 13, 1903
Bowden, H. S	Strathcona	*198	May 13, 1903
Ballantyne, Robt	Calgary	*229	Mar. 14, 1904
Barnhouse, Wm	Edmonton	*244	May 26, 1904
Burkholder, Hy. J	Strathcona	*267	Oct. 15, 1904
Beamish, Crandell	Didsbury	118	Apr. 22, 1908
Bentley, Emerson D	Medicine Hat	17	Apr. 11, 1906
Burger, M. E	Strathcona	2	Sept. 18, 1905
Baird, Jas. B	Red Deer	116	Apr. 14, 1908
Bryson, Wm. J	Medicine Hat	*178	Dec. 4, 1909
Brodie, Hugh W	Wetaskiwin	21	Apr. 20, 1906
Blair, Wm	Lille	25	Apr. 30, 1906
Berry, Stephen	Taber	127	Apr. 22, 1908
Barnes, Fredk. Wm	Lethbridge	146	Oct. 6, 1908
Brill, Geo	Red Deer	161	Aug. 24, 1909
Brown, David	Calgary	75	May 4, 1907
Bruce, Geo	Lethbridge	114	Apr. 8, 1908
Bagley, Wm. S	Edmonton	156	June 18, 1909
Broadwell, Amos	Pincher Creek	170	Sept. 24, 1909
Bailey, Douglas A	Calgary	173	Oct. 22, 1909
Cope, Edmond G. M	Lethbridge	*1	June 30, 1899
Clark, W. Harold	Edmonton	*15	Oct. 9, 1899
Conn, David	Lethbridge	*37	Mar. 23, 1900
Chalmers, Walter N	Edmonton	*51	May 28, 1900
Cullen, Jas. E	Calgary	*115	Feb. 20, 1901
Converse, Stephen J	Ponoka	*192	Mar. 6, 1903
Clifford, Robt. A	Strathcona	*197	May 13, 1903
Chapman, A. B	Red Deer	*239	Apr. 18, 1904
Carruthers, J. A	Calgary	35	May 14, 1906
Callery, Fredk.	Calgary (dup.)	150	Nov. 10, 1908
Coggan, Frank D	Calgary	72	June 3, 1907

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
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NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
<i>Second Class—Continued</i>			
Cousins, Arthur	Calgary	24	Apr 30, 1906
Crawford, Samuel L	Strathcona	52	Oct. 25, 1906
Card, Caleb A	Red Deer	53	Nov 2, 1906
Currie, Jas. J	Calgary	110	Mar. 23, 1908
Cadwell, Theophilus	Calgary	105	Jan 20, 1908
Cranston, Adam	Calgary	55	Jan 22, 1907
Clinton, Otto M	Edmonton	79	June 14, 1907
Collins, Fred M	Frank	88	July 16, 1907
Campbell, Mal. L	Earlsville	96	Oct 28, 1907
Cowall, Cedric A	Red Deer	100	Dec 5, 1907
Calder, Hector J	Calgary	112	Mar. 23, 1908
Carr, Alve B	Edmonton	122	Apr. 22, 1908
Cutting, Chas	Vermilion	130	May 7, 1908
Cunningham, Wm J	Calgary	168	Sept. 21, 1909
Collard, Geo Lewis	Medicine Hat	152	Jan 18, 1909
Croft, Wm ..	Strathcona	174	Oct. 27, 1909
Donaldson, Maxwell	Lethbridge	*40	Mar 23, 1900
Doughty, Jas	Calgary	*143	July 25, 1901
Dresser, Bertram W	Wetaskiwin	*261	Oct 15, 1904
Drader, John A	Pincher Creek	*290	Dec 30, 1904
Dean, David	Calgary	*298	Mar 16, 1905
Drees, Max L	Edmonton (dup)	*269	Nov 30, 1905
Danner, Clifford	Lacombe	22	Apr. 25, 1906
Duncan, Andrew, Sr	Edmonton	129	May 7, 1908
Dick, Wm	High River	57	Jan 14, 1907
Duncan, Andrew, Jr	Edmonton	139	Sept 18, 1908
Dunbar, Hy. C	Edmonton	123	Apr 22, 1908
Donaldson, Samuel	Lethbridge	164	Sept 15, 1909
Dodd, Jas	Edmonton	157	July 5, 1909
Daley, Wm	Strathcona	163	Aug. 27, 1909
Evans, Hy. W	Anthracite	*28	Feb 13, 1900
Erickson, John	Red Willow	*238	Apr 18, 1904
Emery, Ray C	Strathcona	*264	Oct 15, 1904
Evans, Wm	Frank	7	Sept 18, 1905
Eby, Josiah S	Didsbury	95	Oct. 24, 1907
Frieman, Manfred	Lethbridge	*171	Aug. 18, 1902
Finch, Robt. H	Calgary	*184	Oct. 10, 1902
Fraser, Wm	Strathcona	*265	Oct 18, 1904
Frame, Jas F	Lethbridge	*219	Oct. 6, 1903
Fraser, Chas	Okotoks	*350	Mar 16, 1905
Fidler, J. J	Calgary (dup)	135	Aug 6, 1908
Fleetwood, Howard A	Edmonton	*262	Oct. 15, 1904
Fisk, James Geo	Fort Saskatchewan	*307	Apr. 14, 1905
Faulkner, Jos. W	Lundbreck	42	Aug. 11, 1906
Flan, Jas. Robt	Calgary	85	July 16, 1907
Foote, Wm	Pincher Creek	87	July 16, 1907
Foster, John Thcs	Calgary	97	Nov. 14, 1907
Grieve, David	Calgary	*111	Feb. 7, 1901
Griffiths, W. H	Anthracite	31	May 14, 1906
Garneau, Alexr	Strathcona	*266	Oct 15, 1904
Grieve, Wm	Calgary	*276	Oct. 28, 1904
Gibbs, Morley C	Calgary	*297	Mar. 16, 1905
Ginter, Wm. C	Edmonton	18	Apr. 11, 1906
Garner, Anthony	Bankhead	33	May 14, 1906
Godson, Wm	Bankhead	83	June 26, 1907
Good, Wm	Calgary	134	Aug. 6, 1908

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SCHEDULE OF HOLDERS of Final Certificates of Qualification under
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NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>Second Class—Continued</i>			
Hennegar, Ed J	Edmonton	*19	Oct 2, 1899
Haines, Alfred H	Edmonton	*33	May 7, 1900
Hillis, Hy	Medicine Hat	*42	May 23, 1900
Hicklik, John W	Calgary	*79	Sept 29, 1900
Huscon, Thos. S	Lethbridge	*85	Sept. 29, 1900
Howell, Edward	Battleford	*137	May 30, 1901
Hillis, Thos	Lethbridge	*172	Aug. 18, 1902
Henneg, Michael	Calgary	*183	Oct. 10, 1902
Heatley, Wm	Beaumont	*274	Oct. 4, 1904
Henry, Chas	Strathcona	*234	Apr. 18, 1904
Hutchings, H E	Edmonton	*306	Mar. 31, 1905
Hackey, Thos H	Evarts	117	Apr. 14, 1908
Harper, Wm H	Lloydminster	10	Nov. 16, 1905
Heacock, Jas. H	Calgary	71	June 3, 1907
Hay, Geo Porter	Pincher Creek	44	Aug. 11, 1906
Howe, Wm Ed	Sunny Slope	49	Sept. 8, 1906
Hendry, Wm. A	Edmonton	64	May 15, 1906
Harris, Samuel D	Red Deer	62	May 7, 1907
Harris, V H	Red Deer	63	May 7, 1907
Hocklin, John	Edmonton	91	Oct. 15, 1907
Hargreaves, Thos. J	Hillcrest	154	Apr. 25, 1909
Hill, John	Strathcona	131	May 18, 1908
Irwin, Lester J	Strathcona	*270	Oct. 15, 1904
Irving, Albert E	Calgary	56	Jan. 22, 1907
Irvine, Alexr	Calgary	165	Sept. 15, 1909
Judd, David H	Calgary	*161	Oct. 5, 1901
Jarratt, Edward	Strathcona	*263	Oct. 15, 1903
Jackson, James O	Inga	60	Apr 8, 1907
Kerr, Wm	Lethbridge	*35	Mar. 25, 1900
Kidd, Fredk	Calgary	*62	June 14, 1900
Kowalezyck, Antoine	St. Paul de Metis	*114	Feb 16, 1900
Kadlec, J. J	Wetasikwin	*236	Apr. 18, 1904
Killam, Robt. C	Red Deer	65	May 20, 1907
Lang, Jas	Okotoks	*301	Mar. 17, 1905
Lacey, Wm. R	Calgary	*182	Oct. 10, 1902
Lamb, Herb. David	Frank	41	Aug. 11, 1906
LeBreton, Gustav A	Edmonton	*308	Apr. 14, 1905
Long, John	Okotoks	45	Oct. 11, 1906
Laut, John R	Crossfield	153	Apr. 6, 1909
LaVoi, Frank P	Calgary	111	Mar. 23, 1908
Lavelle, Patrick	Exshaw	149	Oct. 30, 1908
Lewis, John H	Lethbridge	166	Sept. 15, 1909
Moran, Austin	Lethbridge	*36	Mar 23, 1900
Marshall, Fredk. Jos	Kamloops, B.C	*203	Aug. 14, 1903
Morrison, John C	Gleichen	*214	Sept. 24, 1903
Mortimer, Samuel M	Strathcona	*241	May 26, 1904
Murray, Robinson	Calgary	104	Jan. 20, 1908
Merres, Horace	Red Deer	93	Oct. 22, 1907
Mjolness, John A	Medicine Hat	16	Apr 11, 1906
Mauland, Jack	Bankhead	99	Dec 5, 1907
Morrison, Kenneth	Coleman	20	Apr. 19, 1906
Mair, Robt. B	Strathcona	37	Aug 8, 1906
Morgan, Thos. M	High River	38	Aug. 7, 1906
Moore, Wm. A	Red Deer	137	Aug. 13, 1908
Mueller, Karl F	Lethbridge	147	Oct. 6, 1908

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SCHEDULE OF HOLDERS of Final Certificates of Qualification under
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NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>Second Class—Continued</i>			
McKay, Daniel	Lethbridge	*4	June 30, 1899
McGee, Thos	White Fish Lake (dup)	113	Mar 28, 1908
McConnell, Wm. J	Lethbridge	*	Oct 8, 1903
McIntyre, John	Calgary (dup)	48	Aug 16, 1906
McKim, Nelson	Edmonton	14	Mar. 26, 1906
McClafin, W. G	Ponoka	*237	Apr 18, 1904
McCardia, Samuel	Edmonton	78	June 14, 1907
McLean, Fredk A	Edmonton	*305	Mar 31, 1905
McNeilly, S	Okotoks	107	Mar 23, 1908
McDonald, Simon	Frank	15	Mar 28, 1906
McDonald, E R	Edmonton	120	Apr 22, 1908
MacDonald, Alex	Edmonton	119	Apr 22, 1908
McDonald, John D	Hillcrest	61	Apr. 18, 1907
McNeil, Neil S	Calgary	68	May 23, 1909
McKinnon, Alex. J	Lille	82	June 20, 1907
McIntyre, Jos	Taber	84	July 8, 1907
McGregor, John	Hillcrest	90	Sept 26, 1907
McNichol, John	Exshaw	103	Jan 3, 1908
McFadyen, John C	Edmonton	124	Apr. 22, 1908
McIndoe, Wm	Calgary	136	Aug 6, 1908
McDonald, John	Lille	172	Oct 5, 1909
McNair, Arod N	Lethbridge	175	Nov 13, 1909
McGillivray, Colin	Lille	176	Nov 13, 1909
Nimmons, Robt	Lethbridge	*38	Mar 23, 1900
Nicholson, Robt. John	Edmonton	67	Mar 20, 1907
Oxley, John	Taber	6	Sept 18, 1905
Parcels, Timothy F	Red Deer	*6	Sept 4, 1899
Payzant, Ernest M	Edmonton	*12	Oct 9, 1899
Pratt, Geo	Edmonton	*16	Oct. 9, 1899
Pearce, Abra	Edmonton	*52	May 28, 1900
Pugh, John	Calgary	28	Apr 30, 1906
Powers, Thos E	Strathcona	*246	May 26, 1904
Potter, Martin	Evarts	51	Oct 5, 1906
Punnett, Lewis L	Chesterwold	50	Oct. 4, 1906
Pallot, Herbt J	Edmonton	144	Sept 28, 1908
Payzant, H. C	Edmonton	121	Apr 22, 1908
Price, John	Edmonton	54	Dec 19, 1906
Patterson, John M	Okotoks	108	Mar 23, 1908
Prince, John E	Calgary	76	June 4, 1907
Purivs, John	Calgary	106	Feb. 15, 1908
Poole, Fred P	Strathcona	132	July 9, 1908
Pellock, Daniel R	Calgary	151	Dec. 2, 1908
Reed, R. W	Lethbridge	*5	June 30, 1899
Richards, Hy. John	Canmore	*30	Feb 13, 1900
Rankin, Thos. Hy	Banff	*77	Sept 29, 1900
Roberts, Wm. B	Fort Saskatchewan	*235	May 18, 1904
Ramsay, Jas. Hy	Evarts	66	May 20, 1907
Ritchie, Wm. A	Calgary	141	Sept 22, 1908
Rich, John H.	Calgary	69	June 3, 1907
Reiton, Ole	Lethbridge	115	Apr 8, 1908
Riddell, Arthur	Calgary	140	Sept 22, 1908
Schatz, Wm. H	Strathcona	*17	Oct 9, 1899
Shaw, M W. S .	Midnapore	*27	Dec. 1, 1899
Stafford, Geo	Lethbridge	*39	Mar. 23, 1900
	(dup).	160	Aug 20, 1909

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SCHEDULE OF HOLDERS of Final Certificates of Qualification under
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NAME	ADDRESS	NO OF CERT	DATE OF ISSUE
<i>Second Class—Continued</i>			
Steven, Hutton	Calgary	*43	Apr 17, 1900
Stagg, Geo	Calgary	*112	Feb 7, 1901
Steven, Alfred E	Calgary	*113	Feb 7, 1901
Shelley, Henry Jas	Calgary	*116	Mar 12, 1901
Sloan, Wm	Lethbridge	*169	July 30, 1902
Siemens, Peter	Anthracite	34	May 14, 1906
Stewart, John A	Red Deer	12	Jan. 2, 1906
Strom, Theodore	Calgary	77	June 4, 1907
Shannon, Jas	Calgary	*223	Nov. 6, 1903
Shackleton, Thos A	Kamloops	*224	Nov 14, 1903
Starkey, Geo J	Ponoka	*262	Oct 15, 1904
	(dup.)	9	Nov. 2, 1905
Stokes, Robt D	Strathcona	19	Apr 11, 1906
Stacey, Fredk H	Edmonton	1	Sept 18, 1905
Shore, John P	Edmonton	3	Sept 18, 1905
Slingsby, Sidney	Calgary	74	June 3, 1907
Stanley, Chas H	Bankhead	32	May 14, 1906
Sefton, Fredk	Lethbridge	39	Aug 10, 1906
Stanley, Benj. F	Calgary	47	Aug 14, 1906
Syer, Thos M	Red Deer	94	Oct 22, 1907
Stockdale, Thos D	Lethbridge	133	July 31, 1908
Simpson, Wm	Coleman	167	Sept 18, 1909
Sparber, Chas H	Lethbridge	177	Nov 24, 1909
Searle, Wm	Coal City	179	Dec 4, 1909
Toreson, Thos	Wetaskiwin	*31	Mar. 7, 1900
Thompkins, Petter	White Fish Lake	*98	Nov 27, 1900
Tasker, Henry A	Nanton	109	Mar. 3, 1908
	(dup)	148	Oct 15, 1908
Tardrew, Henry P	Edmonton	29	May 10, 1906
Turner, Duncan	Edmonton	98	Nov. 26, 1907
Thorley, James	Taber	101	Dec 26, 1907
Turner, Stephen F	Taber	102	Dec 26, 1907
Terry, Frank A	Strathcona	171	Dec 29, 1909
Taylor, Percy E	Taber	145	Oct 6, 1908
Thompson, James	Innisfail	162	Aug 24, 1909
Von Wendel, Carl	Calgary	*222	Nov. 6, 1903
Van Haast, Julius H	Strathcona	*278	Nov 5, 1904
Voss, Edwin E	Fort Saskatchewan	128	May 7, 1908
Verdon, Jos. B	Calgary	58	Jan 22, 1907
Vincent, Robt G	Blairmore	155	May 26, 1909
Varden, Anthony L	Edmonton	158	July 5, 1909
Walker, J. B	Lethbridge	*3	June 30, 1899
Watson, Ernest P	Strathcona	*18	Oct. 9, 1899
White, Jas	Canmore	*73	Sept. 5, 1900
Websdale, Francis	Edmonton	*139	June 21, 1901
Waldock, John G	Medicine Hat	*170	Aug. 18, 1902
Waddell, O S	Edmonton	*245	May 26, 1904
Wright, Geo W	Calgary	73	June 3, 1907
Wilcox, Jas. E	Coleman	125	Apr. 22, 1908
Walburton, John	Spring Point	8	Sept. 18, 1905
Williams, John	Edmonton	23	Apr. 30, 1906
Wilson, R J	High River	80	June 19, 1907
Webb, Jas F	Exshaw	143	Sept 22, 1908
Walker, Thos	Coleman	46	Aug. 14, 1906
Wilkinson, Robt	Calgary	142	Sept 22, 1908
Walker, Rolf E	Edmonton	159	July 27, 1909
Watson, Jas S	Bankhead	169	Sept 21, 1909

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NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
<i>Second Class—Continued</i>			
Young, Geo	Lille	43	Aug 11, 1906
Zurlinder, John	Calgary	138	Sept 14, 1908
<i>Third Class</i>			
Albertson, Andrew O	Strathcona	*135	June 25, 1901
Aikman, Geo	Calgary	*274	Sept 11, 1902
Allan, Albert	Edmonton	*360	May 3, 1903
Allan, Arthur	Edmonton	*526	Apr 18, 1904
Ashcroft, Joseph	Lethbridge	*673	Nov 24, 1904
Akey, Chas. S	Iowalta	*759	Mar 24, 1905
Archibald, Chester H	Wetaskiwin	*786	Mar. 27, 1905
Ambler, David	Wetaskiwin	*790	Mar. 27, 1905
Anderson, Andrew Wm	Wetaskiwin	*794	Mar 27, 1905
Adair, James E	Edmonton	135	May 10, 1906
	(dup)	263	Apr 18, 1907
Agar, Chas	Edmonton	143	May 29, 1906
Adshead, Herb. B	Olds	149	May 31, 1906
Anderson, John J	Stavely	192	Aug 13, 1906
Alexander, J. A	Livingstone	203	Aug 13, 1906
Abraham, W. R	Lacombe	242	Sept. 28, 1906
Adams, David C	Edmonton	207	Sept. 8, 1906
Auld, John	Edmonton	266	Apr 30, 1907
Anderson, G. A	Bowden	318	May 29, 1907
Anderson, Jas J	Crossfield	324	May 29, 1907
Anstett, Frank A	Langdon	337	June 4, 1907
Andrews, W. H	Stewartwyn	364	June 7, 1907
Adams, Chas W	Lacombe	367	June 7, 1907
Antrobus, Wm	Edmonton	386	June 14, 1907
Anderson, Henry	Rosenroll	393	June 14, 1907
Anderson, Wm	Killam	399	June 14, 1907
Anderson, Ed A	Heatherbrae	402	June 14, 1907
Ambler, Geo. D	Wetaskiwin	411	June 14, 1907
Allan, Harold	Calgary	563	Jan 30, 1908
Amdhal, Theo. J	Seven Persons	662	Apr 27, 1908
Archibald, Syl C	Ferry Bank	691	May 5, 1908
Alveberry, Fred S	Wetaskiwin	699	May 7, 1908
Atterbury, Chas. J	Edmonton	773	Sept 18, 1908
Asper, A	Merna	782	Sept 18, 1908
Ashcroft, John	Lethbridge	844	Oct 6, 1908
Anderson, Aitken, McK	Calgary	881	Mar 19, 1909
Adring, Tom	Lethbridge	898	Mar 24, 1909
Atkins, Ralph P	New Dayton	899	Mar 24, 1909
Aveldson, August	Sunny Slope	906	Mar. 26, 1909
Annable, Belton A	Claresholm	965	Apr 16, 1909
Anderson, Edward	Sterling	988	Apr. 20, 1909
Aldridge, Oliver	Cardston	1005	Apr 25, 1909
Arrison, Norman W	Gleichen	1016	Apr 28, 1909
Arrison, Orrin S	Gleichen	1017	Apr 28, 1909
Anderson, Orle H	Sterling	1109	Sept 15, 1909
Adams, Daniel P	Lacmelle	1173	Oct 13, 1909
Blatchford, Peter	Edmonton	*37	Nov. 28, 1899
Bawtinheimer, H E	Red Deer	*185	Dec. 18, 1901
Billo, Jos	Edmonton	*193	Dec. 18, 1901
Bernier, Alexis	Lamoureux	*205	Dec 18, 1901
Berlinguette, Alfred	Whitford	*255	Aug. 18, 1902
Burwell, Arthur P	Edmonton	*354	Apr. 24, 1903
Berg, John	Fort Saskatchewan	*256	May 13, 1903
Bolduc, Jos	Beaumont	*362	May 13, 1903

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SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
<i>Third Class—Continued</i>			
Bowers, Richard J	Strathcona	*364	May 13, 1903
Briggs, M. R	Red Deer	*371	May 13, 1903
Bricker, Menno C	Okotoks	*471	Nov. 6, 1903
Brown, Robert S	Lamoureux	*480	Jan 15, 1904
Burbank, Lyle A	Calgary	*483	Feb. 10, 1904
Billow, Adolph	Canmore	*486	Mar. 14, 1904
Bailey, R. B	Edmonton	*527	Apr. 18, 1904
Brenton, J. R	Edmonton	*544	Apr. 18, 1904
Bolduc, Peter	Beaumont	*638	Oct. 15, 1904
Bevington, Geo. E	Strathcona	*642	Oct. 15, 1904
Browne, Thos. J	Medicine Hat (dup)	*83	Apr. 9, 1906
Brown, John, Jr	Innisfail	*757	Mar. 24, 1905
Bruce, Chas R	Lacombe	*761	Mar. 24, 1905
Blewett, Wm. G	Mewassin	*818	Apr 14, 1905
Bauchin, Theophile	Legal	*214	Aug, 14, 1906
Brunelle, John	Beaumont	*821	Apr. 14, 1906
Brodie, Wm A	Ponoka	*848	May 30, 1905
Blanchette, Peter	Ft Saskatchewan	* 52	Sept. 28, 1905
	(dup.).	257	Dec 28, 1906
Bradbeer, Edwd	Lethbridge	14	Sept 16, 1905
Bilson, Wm Jas	Lethbridge	16	Sept. 16, 1905
Baker, Chas L	East Clover Bar	27	Sept 16, 1905
Bittner, Anton	Ponoka	56	Nov. 11, 1905
Bell, Harry	Duagh	71	Mar. 16, 1906
Baker, Thos	Calgary	72	Mar 19, 1906
Boote, Edwd	Pine Lake	107	Apr 24, 1906
Bodman, John A	Calgary	115	Apr. 30, 1906
	(dup.).	885	Mar 18, 1909
Bartlett, Percy R	Edmonton	142	May 29, 1906
Burns, David	Grassy Lake	170	Aug 11, 1906
Baden, Wm. F	High River	196	Aug. 13, 1906
Benz, August J	Mundare	216	Sept 13, 1906
Bates, Minor	Strathcona	225	Sept 20, 1906
Brown, A J	Wavy Lake	232	Sept 21, 1906
Bucher, L W	Wetaskiwin	273	May 15, 1907
Berg, John P	Wetaskiwin	280	May 15, 1907
Barr, Ralph	Edmonton	286	May 15, 1907
Beggs, John	Innisfail	295	May 20, 1907
Buckton, Henry J	Olds	302	May 23, 1907
Bugton, Ole G	Harmattan.	304	May 23, 1907
Bergen, Jacob	Didsbury	319	May 29, 1907
Bush, Frank C	Didsbury	323	May 29, 1907
Barker, Wm L	Calgary	343	June 4, 1907
Brotherston, Robt. A	Calgary	345	June 4, 1907
Barnes, Wm. J	Calgary	346	June 4, 1907
Brown, Wilfred B	Calgary	359	June 4, 1907
Bush, Henry	Blackfalds	366	June 7, 1907
Brereton, Thos A	Valley City	376	June 7, 1907
Brown, Wm H	Edmonton	385	June 14, 1907
Berry, Robt G	Fort Saskatchewan	392	June 14, 1907
Bradbury, Arthur T	Edberg	398	June 14, 1907
Batke, Albert L	Ferry Point.	417	June 14, 1907
Bucker, Walter L	Mossleigh	424	June 19, 1907
Brower, Archd B	Pincher Creek	928	Apr. 1, 1909
Black, Robt	Strathcona	479	July 24, 1907
Boomer, Marshall	Blackfalds	481	July 27, 1907
Bowman, Albert	Strathcona	485	Aug. 28, 1907
Brickman, Jos. T	Pembina	495	Oct. 15, 1907
Bell, Wm. G	Red Deer	515	Oct. 22, 1907

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SCHEDULE OF HOLDERS of Final Certificates of Qualification under
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NAME	ADDRESS	NO OF CERT.	DATE OF ISSUE
<i>Third Class—Continued</i>			
Bergen, Henry	Didsbury	527	Oct 24, 1907
Burchnall, Frank N	Bluffcentre	543	Oct 28, 1907
Bawslaugh, John J	Calgary	559	Jan. 20, 1908
Burwell, Wm	Gladys	569	Mar 23, 1908
Blair, Geo R	Claresholm	570	Mar 23, 1908
Base, John L	Reid Hill	572	Mar 23, 1908
Bell, Wm. F	High River	573	Mar 23, 1908
Blackorby, W G	Claresholm	575	Mar 23, 1908
Bowerman, Cliff	Cowley	599	Apr 8, 1908
Banfield, J Frank	Lethbridge	626	Apr 9, 1908
Bryant, Percy B	Lethbridge	627	Apr 9, 1908
Baron, Harry	Diamond City	628	Apr. 9, 1908
Brown, John	Evarts	635	Apr. 14, 1908
Beckett, Waitland J	Red Deer	636	Apr 14, 1908
Brubaker, Albert J	Medicine Hat	663	Apr 27, 1908
	(dup)	747	Aug. 21, 1908
Burke, Benj S	Lacombe	693	May 6, 1908
Bradden, Wm. T	Strathcona	702	May 7, 1908
Bader, Benj. H	Lethbridge	704	May 14, 1908
Bateman, Ewart W	Lethbridge	744	Aug 6, 1908
Baxter, John	Red Deer	751	Sept 3, 1908
Blacklock, Robt. O	Westward Ho	754	Sept 8, 1908
Butts, John H	Olds	755	Sept 8, 1908
Brooke, Fredk C	Olds	759	Sept 11, 1908
Ball, Arthur	Mayville	767	Sept 14, 1908
Burns, Wm	Higgins	768	Sept 14, 1908
Bowick, Chas C	Tofield	810	Sept. 28, 1908
Bowick, John D	Tofield	811	Sept. 28, 1908
Brown, John	Kitscoty	812	Sept 28, 1908
Brainard, Jerome W	Nanton	824	Oct 2, 1908
Bowler, Thos H	Macleod	845	Oct. 6, 1908
Benjamin, Albert	Morinville	862	Oct. 20, 1908
Bucknam, Artliff V	Bucknam	869	Nov. 23, 1908
Brenton, Chas. J	Edmonton	871	Dec 23, 1908
Bannerman, Wm	Red Deer	*189	Dec 18, 1901
Brisette, Alonzo	Morinville	30	Sept 16, 1905
Boomer, Alonzo	Lacombe	57	Nov. 22, 1905
Bartholomew, Claude D	Morinville	886	Mar 13, 1909
Barley, Chas	Mountain House	887	Mar 20, 1909
Blatchford, Arthur L	Olds	907	Mar 26, 1909
Bratz, Emil	Pincher Creek	927	Apr. 1, 1909
Bessey, Alfred	Stettler	961	Apr. 13, 1909
Bell, David J	High River	966	Apr 16, 1909
Biamonte, Antonia	Edmonton	979	Apr 20, 1909
Bailey, Geo	Magrath	994	Apr 22, 1909
Burton, Edgar W	Calgary	1004	Apr 23, 1909
Bell, Andrew J	Shepard	1018	Apr 28, 1909
Brantz, Albert A	Mewassin	1036	Apr. 28, 1909
Baumbach, John	Irvine	1046	May 1, 1909
Bishop, Frank E	Medicine Hat	1047	May 1, 1909
Barnes, Edward	Edmonton	1061	May 21, 1909
Brown, Geo. C	Edmonton	1077	May 26, 1909
Bakken, Nels O	Iron Springs	1078	May 28, 1909
Benson, Roy	Calgary	1080	June 8, 1909
Buchanan, Wm E	Nanton	1114	Sept 21, 1909
Baker, Bernard S	Nanton	1115	Sept. 21, 1909
Burr, John C	Calgary	1116	Sept 21, 1909
Betton, Thos W	High River	1140	Sept. 21, 1909
Boyle, Jas E	Elaimore	1142	Sept 24, 1909
Bercyz, Julius	Edmonton	1144	Sept 24 1909

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>Third Class—Continued</i>			
Benson, Geo	Taber	1151	Sept. 28, 1909
Bjor, Frank	Calmar	1158	Sept. 29, 1909
Black, Andrew	Edmonton	1171	Oct. 9, 1909
Bradley, Harold R	Wetaskiwin	1176	Nov. 5, 1909
Barley, Jack E	Edmonton	1181	Nov. 16, 1909
Currie, L	Strathcona	*23	Oct. 9, 1899
Cameron, John	Edmonton	*25	Oct. 9, 1899
Carseadden, F. W	Strathcona	*45	Mar. 7, 1900
Clmk, Geo J	Lacombe	*115	Dec. 31, 1900
Campbell, Michel	Canmore	*134	June 25, 1901
	(dup)	*141	May , 1906
Cruickshank, Chas	Red Deer	*186	Dec. 18, 1901
Clauson, John	Red Deer	*231	Apr. 23, 1902
Currie, Wm	Medicine Hat	*256	Aug. 18, 1902
Currie, Arch'd	Medicine Hat	*406	Aug. 23, 1903
Calhoun, Culver	Calgary	*488	Mar. 14, 1904
Curtis, W. W	Carstairs	*511	Apr. 18, 1904
	(dup)	*551	Dec. 20, 1904
Coulter, Frank	Edmonton	*528	Apr. 18, 1904
Cunningham, J. E	Ellerslie	*529	Apr. 18, 1904
Clark, W. A	Edmonton	*530	Apr. 18, 1904
Charlette, Clifford	Beaumont	*634	Oct. 15, 1904
Cote, Jos	Beaumont	*637	Oct. 15, 1904
Crighton, David O	Lethbridge (dup)	*59	Dec. 2, 1905
Carpenter, David	Pincher Creek	*679	Dec. 9, 1904
Cummins, Walter J. C	Calgary	*743	Mar. 16, 1905
Colter, Chas	Medicine Hat	*860	June 14, 1905
Converse, E	Ponoka	55	Nov. 16, 1905
Campou, Denis	St. Albert	82	Mar. 26, 1906
Clausen, Daniel	Evarts	106	Apr. 24, 1906
Cartwright, Geo	Calgary	116	Apr. 30, 1906
Cooper, Wm. S	Calgary	126	Apr. 30, 1906
Craig, James T	Edmonton	144	May 29, 1906
Colwell, Frank L	Didsbury	152	May 31, 1906
Craig, Mert E	Markerville	158	May 31, 1906
Clark, Jas S	Taber	172	Aug. 11, 1906
Carpenter, Wilfred	Frank	174	Aug. 11, 1906
Clark, O. S	Meadow Creek	193	Aug. 13, 1906
	(dup.)	1087	Oct. 20, 1909
Cascaden, Arthur	Nanton	194	Aug. 13, 1906
Charboneau, Len	Fort Saskatchewan.	213	Sept. 13, 1906
Camfield, Ernest L	Stettler	229	Sept. 20, 1906
Chabot, Jos	Edmonton	235	Sept. 20, 1906
Coghill, Albert	Red Deer	239	Sept. 27, 1906
Cummings, Wm. J	Bentley	244	Sept. 27, 1906
Curtis, Homer G	Edmonton	265	Apr. 29, 1907
Commeyne, Florent	Edmonton	268	Apr. 29, 1907
Campbell, Jas H	Edmonton	282	May 15, 1907
Code, Jas. A	Red Deer	296	May 20, 1907
Campbell, Johnson	Innisfail	317	May 29, 1907
Collard, Chas. D	Mundare	332	May 31, 1907
Cosgrove, Jas. McA	Calgary	341	June 4, 1907
Carter, John R	Morningside	368	June 7, 1907
Cox, John	Stettler	369	June 7, 1907
Cunningham, Orvill D	Vegreville	395	June 14, 1907
Cunningham, Wilber R	Bawlf	403	June 14, 1907
Campbell, Benj. F	Edmonton	405	June 14, 1907
Clark, Herbert	Strathcona	418	June 14, 1907
Coates, Robt. A	Cochrane	441	June 29, 1907

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
<i>Third Class—Continued</i>			
Caplin, Fred C	Huntsville	467	July 15, 1907
Charters, Ed. J	Claresholm	469	July 15, 1907
Clemens, Pater F	Stettler	531	Oct 28, 1907
Crego, W. E	Lacombe	537	Oct 28, 1907
Cook, Wm D	Lamerton	565	Feb 27, 1908
Culp, Geo W	Spring Coulee	630	Apr 9, 1908
Cook, Walter B	Medicine Hat	659	Apr 27, 1908
Cutting, Francis R	Vermilion	676	Apr 27, 1908
Chambers, John	Lloydminster	710	May 18, 1908
Castian, Desire	Cardiff	774	Sept 18, 1908
Collard, Richard R	Edmonton	775	Sept 18, 1908
Coburn, Alex. F	Duagh	787	Sept 21, 1908
Cotterall, John	Calgary	798	Sept 22, 1908
Clark, Tom	Cochrane	799	Sept 22, 1908
Carrow, Jos B	Calgary	800	Sept. 22, 1908
Cull, Cecil	Vegreville	813	Sept. 28, 1908
Challenger, Alf. E	Edgerton	814	Sept 28, 1908
Courtright, Leo	Maughan	815	Sept 28, 1908
Carniere, Arthur	High River	825	Oct 2, 1908
Cody, Wm H	High River	826	Oct 2, 1908
Cousins, Bert	High River	827	Oct 2, 1908
Cousins, Walter	High River	828	Oct 2, 1908
Cameron, Geo. M	Calgary	861	Oct 10, 1908
Cleave, Geo M	Vegreville	865	Oct 27, 1908
Coffman, Robt	Frank	868	Nov. 5, 1908
Curey, Wm	Bowville	892	Mar 24, 1909
Conibear, Wm N	Lethbridge	893	Mar 24, 1909
Carlson, Carl G	Didsbury	908	Mar 26, 1909
Canton, Jules	Edmonton	939	Apr 3, 1909
Chester, Thos W	Macleod	952	Apr. 7, 1909
Christian, Wm. M	Vermilion	980	Apr. 20, 1909
Cleven, Nels T	Killam	995	Apr 23, 1909
Court, Wm. E	The Gap	1019	Apr 28, 1909
Crews, Waldan	Medicine Hat	1048	May 1, 1909
Cathro, Aylmer G	Lethbridge	1170	Oct 9, 1909
Cowell, Robt. J	Edmonton	1062	Oct 21, 1909
Chalmers, John	Coleman	1110	Sept 18, 1909
Cartwright, Walter	Frank	1111	Sept. 18, 1909
Cotton, Samuel J	Coleman	1112	Sept 18, 1909
Crerar, James	Edmonton	1179	Nov. 16, 1909
Delop, Thos	Frank	*293	Sept. 30, 1902
Dozey, Chas	Frank	*447	Sept 5, 1903
	(dup)	7	Sept. 18, 1905
Dobbs, F. M .	Iowalta	*515	Apr. 18, 1904
Druar, S P	Riviere Qui Barre	*532	Apr 18, 1904
Dubuc, Emile	Morinville	*551	May 26, 1904
Davis, Henry E	Didsbury	*752	Mar 24, 1905
Davie, Alvin A	Calgary	*846	Mar 26, 1905
Dickson, Jas	Blairmore	6	Sept 16, 1905
Dowsett, Nat	Frank.	20	Sept. 16, 1905
	(dup)	516	Oct. 22, 1907
Dye, Jas. E	Ponoka	33	Sept 16, 1905
Deisting, C. G	Duhamel	54	Nov. 3, 1905
Dowling, Nelson	Edmonton	90	Mar. 11, 1906
Devillard, Louis	Edmonton	89	Mar. 11, 1906
Drader, Ernest	Lacombe	112	Apr. 25, 1906
Dawes, Albert A	High River	121	Apr. 30, 1906
Davis, John B	Edmonton	133	May 11, 1906
	(dup).	1183	Nov. 27, 1909

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
<i>Third Class—Continued</i>			
Dickson, Wm A	Medicine Hat	167	Aug. 11, 1906
Dickens, Chas	Lille	183	Aug. 13, 1906
Dance, Walter H	Innisfail	293	May 20, 1907
Doolan, John T	Fort Saskatchewan	335	May 31, 1907
Doyle, John L	Langdon	349	June 4, 1907
Davidson, Peter A	Calgary	358	June 4, 1907
Drewes, H. F. W	Mayville	373	June 7, 1907
Davidson, Andrew C	Lacombe	377	June 7, 1907
Duncombe, Walter	Taber	446	July 15, 1907
Dersch, Anton L	Leavings	451	July 15, 1907
Dobbie, Alex	Pincher Creek	929	Apr. 1, 1909
Drury, Wm	Taber	552	Dec 26, 1907
Drinnon, Robt. McC	Calgary	586	Mar. 23, 1908
Deakin, Thos	Hullerest	606	Apr. 8, 1908
Dickson, John	Red Deer	640	Apr. 14, 1908
Dehning, Louis H	Tapscott	649	Apr. 15, 1908
Davis, Geo O	Crossfield	680	May 1, 1908
Dowsett, Alfred	North Bank	697	May 7, 1908
Davis, Chris. A	Lavoy	724	May 18, 1908
Dennis, Glen	Vegreville	726	May 18, 1908
Denner, Jos	Lesser Slave Lake	737	Aug. 6, 1908
Dunbar, Frank G	Three Hills	756	Sept 8, 1908
Dickan, Chas. J. H	Didsbury	760	Sept. 11, 1908
Davis, Clarence	Stavely	829	Oct 2, 1908
Davis, Christopher	Lethbridge	846	Oct. 6, 1908
Dingee, Harry	Lethbridge	867	Oct. 29, 1908
Dangerfield, James A	Olds	*755	Mar. 24, 1905
	(dup)	490	Dec. 30, 1909
Donnelly, Henry J	Wetaskiwin	*784	Mar. 27, 1905
Dawson, John C	Mountain View	455	July 15, 1907
Denson, Alex. R	Bankhead	550	Dec. 5, 1907
Duffey, Alfred	Lethbridge	895	Mar. 24, 1909
Dluski, John	Sundial	897	Mar. 24, 1909
Deugan, Hiram W	Coleman	910	Mar 30, 1909
Darimont, Jas	Edmonton	942	Apr. 3, 1909
Dickan, Fred. W	Ponoka	974	Apr 17, 1909
Dupmeyer, Jos	Edmonton	981	Apr. 20, 1909
Davis, Geo W	Flagstaff	996	Apr 22, 1909
Duncan, Alexr. D	Edmonton	1063	May 21, 1909
Dixon, Wm	Calgary	1117	Sept 21, 1909
Dickie, Samuel	Lethbridge	1157	Oct. 5, 1909
Edgerton, Guy	Red Deer	*184	Dec 18, 1901
Evarts, Lucius P	Calgary	*394	Aug 14, 1903
Evarts, Philo	Banff	*490	Mar 14, 1904
Edmonds, Thos J	Edmonton	*803	Mar 31, 1905
Enbody, Chas S	Calgary	125	Apr. 30, 1906
Ennes, John Jas	Innisfail	147	May 31, 1906
Ewart, David	Strathcona	219	Sept 13, 1906
Endersby, Jos. P	Medicine Hat	261	Apr 6, 1907
Engen, Anton A	Sunny Slope	311	May 29, 1907
Eggenberger, John K	Coalbanks	327	May 29, 1907
Elliott, John	Calgary	353	June 4, 1907
East, Alfred E	Strathcona	389	June 14, 1907
Ensminger, Louis C	Lacombe	400	June 14, 1907
Erratt, Wm H	Nanton	419	June 19, 1907
Emmerson, Robt	Bellevue	911	Mar. 30, 1907
Ellis, John W	Edmonton	492	Oct. 15, 1907
Elliott, Henry N	Carstairs	536	Oct 28, 1907
Euard, Arthur W	Calgary	556	Jan 20, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
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NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>Third Class—Continued</i>			
Elmhurst, Jcs A	High River	584	Mar 23, 1908
Eiseman, Jos	Peace River Crossing	738	Aug 6, 1908
Ellison, O. H	Strome	783	Sept 18, 1908
Endersby, John Geo	Lethbridge	10	Sept 16, 1905
Elford, Albert	Grassy Lake	1009	Apr 25, 1909
Edwards, Orien	Cheadle	1020	Apr 28, 1909
Emmericks, John J	Gleichen	1021	Apr 28, 1909
Evans, John B	Canmore	1022	Apr 28, 1909
East, Neal	Edmonton	1083	July 9, 1909
Evans, Geo. A	Raymond	1100	Sept 15, 1909
Elder, Chas G	Calgary	1118	Sept 21, 1909
Entwistle, Chas H	Edmonton	1145	Sept 24, 1909
Elliott, Thos	Cardiff	1182	Nov 24, 1909
Flack, Samuel	Red Deer	*194	Dec 18, 1901
Findlay, Jas F	Leduc	*211	Dec 18, 1901
Fair, Francis Wm	Medicine Hat	*257	Aug 18, 1902
Foster, Wm. W	Red Deer	*370	May 13, 1903
Fluker, W. R	Fort Saskatchewan	*545	Apr 18, 1904
Flett, Andrew R	Calgary	*744	Mar 16, 1905
Farren, Edgar	Evarts	*777	Mar 24, 1905
Fowler, Wm H	Edmonton	*800	Mar 31, 1905
Flintoff, Walter	Partridge Hill	*816	Apr 14, 1905
Ferguson, Ernest G	Ft Saskatchewan	80	Mar 26, 1906
	(dup)	944	Apr 5, 1909
Fairman, Chas	Medicine Hat	85	Apr 11, 1906
Frizzelle, Jas I	Lacombe	104	Apr 24, 1906
Fullerton, Thos W	Calgary	122	Apr 30, 1906
Fordyce, J	Bowden	156	May 31, 1906
Faltainsley, M	Morinville	208	Sept. 13, 1906
Fitzsimmons, G. E	Calgary	237	Sept 24, 1906
Falkenberg, Fred D	Saron	275	May 15, 1907
Forster, Michael	Leduc	278	May 15, 1907
Fortune, Geo	Trochu Valley	301	May 23, 1907
Fryett, Arthur J	Neapolis	312	May 29, 1907
Frieson, J. F	Sunny Slope	313	May 29, 1907
Fike, Daniel K	Crossfield	320	May 29, 1907
Fuller, Albert	Calgary	357	June 4, 1907
Fox, Henry	Olds	380	June 10, 1907
Findlay, Thos	High River	429	June 19, 1907
Fricke, Chas L	Erskine	541	Oct 28, 1907
Fauver, A. E.	Lamerton	542	Oct 28, 1907
Freeze, Benj. H	Edmonton	590	Apr 2, 1908
Fried, Vincent J	Granum	598	Apr. 2, 1908
Firth, Hedrick	Lethbridge	603	Apr 8, 1908
Fowler, Dan T	Magrath	614	Apr 8, 1908
Friesen, Peter	Didsbury	652	Apr 15, 1908
Fenner, John S	Camrose	718	May 18, 1908
Farquhar, Alex. W	Calgary	802	Sept 22, 1908
Fortin, Chas. C	Morinville	876	Jan 18, 1909
Forland, Ole	Lethbridge	900	Mar. 24, 1909
Feargue, Francis J	Pincher Creek	930	Apr 1, 1909
Forrest, Jas O	Lacombe	951	Apr 5, 1909
Fowlie, Wm	Blayney	967	Apr. 16, 1909
Forshn, John	New Dayton	989	Apr. 20, 1909
Falardean, Aaron J	Faber	1010	Apr. 25, 1909
Francis, Jos	Faber	1011	Apr 25, 1909
Fullerton, Daniel W	Faber	1012	Apr. 25, 1909
Fielding, Jas	Lethbridge	1074	Apr 26, 1909
Farrend, Chas H	Barnwell	1152	Sept 28, 1909

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
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NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>Third Class—Continued</i>			
Finstad, Ole A	Claresholm	1153	Sept. 28, 1909
Fansher, Fred	Lamont	1159	Sept. 29, 1909
Fedun, John	Mundare	1160	Sept. 29, 1909
Frey, Frank	Frank	1172	Oct. 11, 1909
Fairbairn, Robt	Vegreville	1174	Oct. 22, 1909
Gagnon, Alfred	St. Albert	* 55	May 28, 1900
Gaetz, Jas. F.	Red Deer	*226	Apr. 23, 1902
George, John	Kamloops	*478	June 13, 1904
Giddings, Thos	Calgary	*489	Mar. 14, 1904
Grigat, John	Leduc	*533	Apr. 18, 1904
Goebel, H. C.	Edmonton	*543	Apr. 18, 1904
Gardner, Marques	Red Deer	*780	Mar. 24, 1905
Green, Jno	Medicine Hat	*857	June 14, 1905
Gallup, Walter E.	Medicine Hat	*858	June 14, 1905
Grote, Frank	Bon Accord	*890	Aug. 31, 1905
Griffen, Henry	Stavely	11	Sept. 16, 1905
Grote, Alex. E.	Spruce Grove	65	Mar. 16, 1906
Gibeault, J. Eugene	Morinville	70	Mar. 16, 1906
Graf, John	Fort Saskatchewan	92	Apr. 11, 1906
Galloway, Alex.	Medicine Hat	84	Apr. 11, 1906
Going, P. S.	Mountain View	169	Aug. 11, 1906
Garneau, Larry	Strathcona	224	Sept. 13, 1906
Godley, Maurice W.	Red Deer	238	Sept. 27, 1906
Grant, Farquhar	Edmonton	267	Apr. 29, 1907
Glaspie, Ed. H.	Hurry	331	May 31, 1907
Grue, Simon T.	Camrose	394	June 14, 1907
Grove, Benj. K.	Camrose	404	June 14, 1907
Grant, Geo. F.	Lewisville	412	June 14, 1907
Galentine, Frank	High River	434	June 19, 1907
Graves, Jas. H.	Calgary	457	June 15, 1907
Giese, Gottlieb W.	Spruce Grove	499	Oct. 15, 1907
Graham, Willard	Crossfield	519	Oct. 24, 1907
Gwilt, Geo.	Didsbury	528	Oct. 24, 1907
Gray, John A.	Claresholm	576	Mar. 23, 1908
Gibson, Wm. H.	Coleman	601	Apr. 8, 1908
Gerrard, John	Lundbreck	914	Mar. 30, 1909
Gerber, Dan E.	Sunny Slope	648	Apr. 4, 1908
Gillett, Geo. I.	Carstairs	681	May 1, 1908
Grundy, Jas.	Bowden	684	May 1, 1908
Greene, Geo. A.	Edmonton	708	May 18, 1908
Gustafson, Ivan	Leduc	709	May 18, 1908
Gibbs, Jas. A.	Delnorte	715	May 18, 1908
Gray, Wm. J.	Fort Vermilion	739	Aug. 6, 1908
George, Wm. S.	Peace River Crossing	740	Aug. 6, 1908
Graham, Jno. M.	Athabasca Landing	746	Aug. 13, 1908
Gotobed, B.	Strathcona	776	Sept. 18, 1908
Gale, Sydney H.	Calgary	791	Sept. 24, 1908
Gillies, Wm.	Strathcona	872	Dec. 23, 1908
Goodfellow, Jas.	Calgary	118	April 30, 1906
Goeson, Geo. J.	Granum	912	Mar. 30, 1909
Gilmore, David	Frank	913	Mar. 30, 1909
Gibb, David T.	Raymond	990	Apr. 20, 1909
Going, Ernest M.	Mountain View	1006	Apr. 25, 1909
Gusa, Herman E.	Calgary	1013	Apr. 25, 1909
Grobe, Chas. W.	Shepard	1023	Apr. 28, 1909
Geertruyden, H. Van	Edmonton	1086	July 25, 1909
Gilmore, Chas. R.	Red Willow	1091	Aug. 27, 1909
Gullekson, Edwin L.	Wetaskiwin	1195	Sept. 7, 1909
Guertin, Jos. E.	Bowville	1101	Sept. 15, 1909

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
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NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>Third Class—Continued</i>			
Gowdy, Wm T	Airdrie	1119	Sept. 21, 1909
Green, Jay H	Brant	1120	Sept 21, 1909
Grimoldby, Walter H	Strathcona	1161	Sept. 29, 1909
Hewer, Jesse J	Strathcona	* 24	Oct 9, 1899
Harrold, David	Edmonton	* 54	May 28, 1900
Heffner, Frank	Bruederheim	* 92	Nov 15, 1900
Holden, J A	Strathcona	*114	Dec 31, 1900
Hober, Jno W	Ponoka	*214	Jan. 7, 1902
Harris, Ed. S	Star	*327	Dec 18, 1902
Hudson, Arthur C	Edmonton	*330	Jan 6, 1903
Hehsdoerfer, Jos	Edmonton	*359	May 13, 1903
Hancy, Sylvester	Lacombe	*482	Jan. 28, 1904
Hougestol, Anton	Wetaskiwin	*516	Apr. 18, 1904
Harrold, Jno., Jr	Edmonton	*534	Apr 18, 1904
Hankehadl, Edgar O	Duhamel	*785	May 27, 1905
Hardy, Albert Wm	Lake de May	*787	Mar. 27, 1905
	(dup.)	878	Feb. 10, 1909
Henschel, August	Strathcona	49	Sept 23, 1905
Hill, Marshall	Macleod	13	Sept. 16, 1905
Hart, Wm. J	Raymond	22	Sept 16, 1905
Hacking, Geo A	Magrath	23	Sept 16, 1905
Haybarger, Chas A	Fort Saskatchewan	34	Sept 16, 1905
Hewitt, Robt E	Bon Accord	38	Sept 18, 1905
Hays, Morion L	Tofield	91	Apr. 11, 1906
Headley, Henderson	Medicine Hat	88	Apr. 11, 1906
Higgins, Jas. A	Medicine Hat	87	Apr. 11, 1906
Humbke, Detriche E	Battle River	101	Apr 20, 1906
Hunter, Wm. Jno	Fort Saskatchewan	109	Apr 24, 1906
Hobson, Patrick J	Strathcona	130	May 4, 1906
Hunter, Fred H	Didsbury	151	May 31, 1906
Hallett, Geo E	Camrose	163	July 7, 1906
Henry, Ortus	Clareholm	177	Aug 13, 1906
Heighington, J H	Rosenroll	230	Sept 20, 1906
Hammitt, J A	Wetaskiwin	234	Sept 20, 1906
Harris, A. J	Chipman	223	Sept 13, 1906
Hardy, Wm B	Edmonton	270	Apr 29, 1907
Hellmeis, Jno	Millet	276	May 15, 1907
Hitchcock, Arthur L	Pine Lake	292	May 20, 1907
Harris, Ed	Mayton	303	May 23, 1907
Hardman, Geo S	Mayton	306	May 23, 1907
Hilts, Neil A	Didsbury	314	May 29, 1907
Huff, Wm H	Crossfield	315	May 29, 1907
Harrison, David R	Lamont	333	May 31, 1907
Handley, J T	Valley City	370	June 7, 1907
Hauser, Jno H	Strome	387	June 14, 1907
Hauser, Geo W	Strome	401	June 14, 1907
Halstead, Arthur L	Edberg	407	June 14, 1907
Hoar, Wm J	Berry Bank	409	June 14, 1907
Henry, Walter F	Ponoka	410	June 14, 1907
Hartt, Guy C	High River	421	June 19, 1907
Herron, Jno A	Nanton	915	May 30, 1909
Honan, Jno. E	High River	431	June 19, 1907
Huslop, Thos. L	Taber	443	July 15, 1907
Havervold, Robt L	Lethbridge	462	July 15, 1907
Henderson, Clifton C	Elmor	470	July 15, 1907
Heitman, Herman	Pincher Creek	473	July 15, 1907
Hicks, Ephrim B	Raymond	474	July 15, 1907
Harding, Noris H	Lethbridge	477	July 15, 1907
	(dup)	848	Oct. 6, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>Third Class—Continued</i>			
Hallman, Sydney E	Carstairs	488	Oct 12, 1907
Horne, Ned	Edmonton	506	Oct 15, 1907
Healy, Jos	Bankhead	548	Dec. 5, 1907
Hilton, Wm. H	Taber	553	Dec. 26, 1907
Henderson, Jno, H	Taber	554	Dec 26, 1907
Harris, Geo A	Calgary	555	Jan. 20, 1908
Horwood, Walter E	Calgary	560	Jan. 20, 1908
Hyde, Geo T	High River	581	Mar 23, 1908
Howard, Ernest E	Conjuring Creek	594	Apr. 2, 1908
Hutchings, Percy J	Edmonton	916	Mar. 30, 1909
Howard, Sam	Frank	613	Apr. 8, 1908
Horn, James	Lethbridge	616	Apr. 8, 1908
Hills, Wm. C	Hillcrest	624	Apr. 9, 1908
Hilts, Simon W	Didsbury	654	Apr 15, 1908
Hodges, Elmer S	Medicine Hat	660	Apr 27, 1908
Hoy, Walter M	Medicine Hat	665	Apr. 27, 1908
Haskins, Martin	Vermilion	670	Apr 27, 1908
Hayes, Fred J	Vermilion	671	Apr 27, 1908
Hall, Richard	Lloydminster	673	Apr 27, 1908
Higginson, R. R	Kitcooty	677	Apr 27, 1908
Holgate, Jno	Airdrie	685	May 1, 1908
Haselwood, Alfred W	Rosenroll	701	May 7, 1908
Hunting, Humphrey W	Lacombe	769	Sept. 14, 1908
Holbrook, Peter E	Stettler	770	Sept. 14, 1908
Hanlan, W. J	Edmonton	777	Sept. 18, 1908
Hallvarson, Peter W	Black Diamond	792	Sept 22, 1908
Haeflin, Mark E	Exshaw	793	Sept. 22, 1908
Henderson, Alex	Granum	830	Oct 2, 1908
Hendrickson, Jno	Claresholm	831	Oct. 2, 1908
Henderson, Robt	Lethbridge	958	Apr. 9, 1909
Hatfield, Chas L.	Blayney	968	Apr. 16, 1909
Hansen, Peter C	Cleaverville	977	Apr. 20, 1909
Hultgren, Victor	Stavely	987	Apr 20, 1909
Horne, Geo., Jr	Edmonton	982	Apr. 20, 1909
Hall, David N	Grassy Lake	993	Apr. 30, 1909
Honeywell, Sid, C	Sedgewick	997	Apr. 22, 1909
Hough, Oscar	Camrose	998	Apr. 22, 1909
Haugen, Peter M.	Bardo	999	Apr. 22, 1909
Hardy, Herbt. J	Exshaw	1024	Apr. 28, 1909
Henderson, A. J	Langdon	1025	Apr. 28, 1909
Holtford, Jos. C	Lac Ste Anne	1037	Apr. 29, 1909
Hauptert, John	Lewisville	1044	Apr. 30, 1909
Hunter, Jas. S	Edmonton	1064	May 21, 1909
Hendrie, Jas M	Lethbridge	1102	Sept. 15, 1909
Herrmann, Chas.	Queenstown	1121	Sept. 21, 1909
Hutchinson, Fred	High River	1122	Sept 21, 1909
Herrick, Ocsar F	Eyremore	1123	Sept 21, 1909
Hiney, Allan	Cochrane	1124	Sept 21, 1909
Hatfield, Wilmer B	Lethbridge	1178	Nov 13, 1909
Hawkes, Wm	Edmonton	1185	Dec. 4, 1909
Imeson, Geo	Stony Plain	*206	Dec. 18, 1901
Inghis, Geo	Red Deer	*779	Mar 24, 1905
Ibson, Clause W.	Mewassin	*804	Mar 31, 1905
Isaacson, Frank	Claresholm	191	Aug 13, 1906
Iverson, Olaf	Molstad	231	Sept. 20, 1906
Isaacson, Arthur F	Evarts	514	Oct. 22, 1907
Isherwood, Wm	Calgary	588	Mar. 23, 1908
Ingram, Wm	Leduc	700	Mar. 7, 1908
	(dup.).	860	Oct. 7, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
<i>Third Class—Continued</i>			
Isaacson, Willie	Claresholm	969	Apr. 16, 1909
Illingworth, Jos	Edmonton	983	Apr. 20, 1909
Inglesby, E. C.	Edmonton	1180	Nov. 16, 1909
Jackson, Chas	Calgary	* 66	July 19, 1900
Joyner, Chas. A.	Bentley	*173	Oct. 2, 1901
James, Dunham D.	Didsbury	*321	Nov. 1, 1902
Jeune, Ivan	Wetaskiwin	*332	Feb. 13, 1903
Jameson, Johnston	Ponoka	*353	Apr. 24, 1903
Johnson, Conrid	Red Deer	*414	Aug. 29, 1903
Jameson, Chas. W.	Ponoka	*644	Oct. 15, 1903
James, F. S.	Ponoka	28	Sept. 16, 1905
Johnson, Elijah	Canyon	61	Dec. 29, 1905
Johnson, Ed	Diana	99	Apr. 20, 1906
Jenson, Louis C.	Alix	114	Apr. 25, 1906
Jones, Jack	Bankhead	140	May 14, 1906
Johnson, Benj. F.	Raymond	186	Aug. 13, 1906
Jones, Fred	Coleman	189	Aug. 13, 1906
Job, Chas	Strathcona	222	Sept. 13, 1906
Jordon, A. H.	Edmonton	271	Apr. 22, 1907
Johnson, Pontus	Lewisville	281	May 15, 1907
Jesse, Ed	Hardisty	284	May 15, 1907
Johnson, G. Anton	Didsbury	316	May 29, 1907
Johanson, Henry	Walsh	328	May 31, 1907
Johnson, Jos	Medicine Hat	361	June 4, 1907
Jones, Arthur	Camrose	383	June 14, 1907
Johns, Thos. L.	Magrath	459	July 15, 1907
Jamieson, Jesse H.	Edmonton	505	Oct. 15, 1907
Johannson, Jno. T.	Olds	521	Oct. 24, 1907
Journey, Clyde R.	Brant	582	Mar. 22, 1908
Jepson, Walter	Bellevue	612	Apr. 8, 1908
Johnston, Percy W.	Edmonton	713	May 18, 1908
Johnson, Elmer	Daysland	716	May 18, 1908
Julien, Eugene	South Bend	720	May 18, 1908
Johnson, Chas. J.	Staveley	832	Oct. 2, 1908
Jenson, Ole E.	Seven Persons	833	Oct. 2, 1908
Jones, Isaac	Raymond	849	Oct. 6, 1908
James, John E.	Taber	850	Oct. 6, 1908
Johnson, Alfred	Hillcrest	917	Mar. 30, 1909
Jackson, Thos. C.	Stettler	962	Apr. 13, 1909
James, Griffith L.	Ponoka	975	Apr. 17, 1909
Jones, Robert	Lethbridge	1103	Sept. 15, 1909
Jermaine, Stephen	Andrew	1038	Apr. 29, 1909
Johnson, W. E.	Lethbridge	1058	May 4, 1909
Jones, Arthur W.	Edmonton	1060	May 20, 1909
Johnson, John G.	Millet	1065	May 21, 1909
Jones, Wm. Daniel	Edmonton	1066	May 21, 1909
Krause, Otto	Innisfail	*171	Oct. 1, 1901
Kanngiesser, Simon	Lacombe	*512	Apr. 18, 1904
Kelsey, A. F.	Clover Bar	*535	Apr. 18, 1904
Knapp, Henry H.	Edmonton	*645	Oct. 15, 1904
Kerwin, James	Leavings	*748	Mar. 16, 1905
Kolner, Bernard	Millet	*793	Mar. 27, 1905
Klapstein, Ed	Ellerslie	* 49	Apr. 25, 1900
Krouse, Wilhelm	Spruce Grove	*819	Apr. 14, 1905
Kallis, Ed	Strathcona	*847	May 26, 1905
Knight, Harry P.	Edmonton	35	Sept. 16, 1905
Krinke, August	Highland Park	46	Sept. 18, 1905
Kerr, John	Calgary	64	Mar. 9, 1906

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SCHEDULE OF HOLDERS of Final Certificates of Qualification under
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NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
<i>Third Class—Continued</i>			
Kennedy, Dent	Calgary	124	Apr 30, 1906
Karmagel, F R	Didsbury	154	May 31, 1906
Kiddle, Thos M	Stirling	165	Aug 11, 1906
Kearney, W J	Claresholm	178	Aug. 13, 1906
Keith, Ed C	Lille	148	Aug 13, 1906
	(dup)	809	Sept. 25, 1908
Kjosness, Peter P	Martins	217	Sept 13, 1906
Kendrew, Jos W	Edwell	250	Oct. 5, 1906
Krinke, Benj	Highland Park	249	Oct. 5, 1906
Knowles, Kenneth E	Wetaskiwin	264	Apr. 25, 1907
Kremer, David H	Innisfail	294	May 20, 1907
Kjorsvik, Albert	Eagle Hill	305	May 23, 1907
Kittlitz, Ed	Bruederheim	329	May 31, 1907
Kenny, John	Calgary	918	Mar 30, 1909
Knape, Ernest P	Calgary	341	June 4, 1907
Keegan, Dan	Morley	355	June 4, 1907
Kreamer, Wm W	Strathcona	384	June 14, 1907
Klaperazuk, S	Mundare	406	June 14, 1907
Keith, Scott	Taber	551	Dec 26, 1907
Kniseley, Arthur C	Standoff	1143	Sept 21, 1909
Klein, Emil F	Leduc	669	Apr. 27, 1908
Kadlee, Frank	Wetaskiwin	712	May 18, 1908
Kinne, Fred	Calgary	750	Aug. 28, 1908
Kemp, Robt M	Duagh	816	Sept 28, 1908
Koester, Carl H	Granum	834	Oct. 2, 1908
Keeler, Ralph A	Lethbridge	851	Oct 6, 1908
Kendrew, John T	Edwell	888	Mar. 20, 1909
Kalis, Theodore	Edmonton	941	Apr 2, 1909
King, Chas, F	Macleod	953	Apr. 7, 1909
Knudson, Loues	Killam	1000	Apr 22, 1909
Kundson, Chas. A	Wetaskiwin	1098	Sept 10, 1909
Lamoureux, Alci'e	Lamoureux	96	Nov 15, 1900
Lee, Geo	Edmonton	*200	Dec 18, 1901
Lewis, Wm H	Innisfail	*191	Dec 18, 1901
	(dup)	*888	Aug 28, 1905
Lamoureux, Alp	Lamoureux	*186	Dec 18, 1902
Loiselle, Jerry	Red Deer	*225	Apr 23, 1902
Lundy, Wm Thos	Innisfail	*227	Apr 23, 1902
Lynch, Alix. W	Blairmore	*259	Aug 18, 1902
Lyseng, Knut K	Bittern Lake	*390	Aug 7, 1903
Lindberg, Erick	Calmar	*510	Apr 18, 1904
Langhausen, Jacob	Fort Saskatchewan	*523	Apr 18, 1904
Langhausen, Peter	Fort Saskatchewan	*524	Apr. 18, 1904
Lee, Andrew E	Wetaskiwin	*525	Apr 18, 1904
Lehman, Harrison	Edmonton.	*633	Oct 15, 1904
	(dup)	*564	Feb. 15, 1908
Logan, John	Penhold	*774	Mar. 24, 1905
Logan, Dan	Red Deer	*783	Mar. 24, 1905
Lee, Oscar E	Wetaskiwin	*788	Mar. 27, 1905
Long, Albert W	Namoo	36	Sept 16, 1905
Lindholm, Andrew G J	Burnt Lake	60	Dec. 27, 1905
Lee, Albert	Wetaskiwin	97	Apr 20, 1906
Laine, Francois P	Bankhead	138	May 14, 1906
Lambe, Alex	Didsbury	150	May 30, 1906
Linkous, Jas B	Raymond	173	Aug. 13, 1906
Lindsay, Samuel D	Strathcona	212	Sept. 13, 1906
Lennox, Jas A	Red Deer	251	Oct 5, 1906
Luigi, Liega	Lille	256	Dec. 28, 1906
Lawrence, Fred'k S	Fort Vermilion (dup.)	544	Oct 29, 1907
Lawrence, Fenwick N	Edmonton	260	Feb. 23, 1907

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
<i>Third Class—Continued</i>			
Lavoll, Lewis J	Evarts	290	May 20, 1907
Lancaster, Robt. V.	Calgary (dup)	736	July 24, 1908
Latam, Myron B	Content	371	June 7, 1907
Lehman, Sam	Nanton	438	June 19, 1907
Lamoureux, Hermidas	Lamoureux	502	Oct. 15, 1907
Lamoureux, Albert	Lamoureux	503	Oct. 15, 1907
Lee, Thos. H	Olds	518	Oct. 24, 1907
Lewis, Lyman, L	Olds	526	Oct 24, 1907
Lang, Wm	Okotoks	566	May 26, 1908
Lyon, Omar	Blayney	571	May 23, 1908
Lee, John A	Edmonton	592	Apr. 2, 1908
Lee, Lars	Leduc	678	Apr. 27, 1908
Loveless, Peter	Lloydminster	707	May 18, 1908
Lucas, Sam B	Daysland	719	May 18, 1908
Lansing, Geo	Leavings	*747	Mar 16, 1905
	(dup)	748	Aug. 21, 1908
Livingstone, Jas C	Lethbridge	901	Mar 24, 1909
Littlefield, Chas W	Eagle Hill	909	Mar. 26, 1909
Large, Eugene	Frank	919	Mar 30, 1909
Lehman, Peter L	Pincher Creek	931	Apr 1, 1909
Laut, Frank	Ena	945	Apr. 6, 1909
Link, Ronald F	Lethbridge	960	Apr 9, 1909
Lunn, Edward	Stettler	963	Apr. 13, 1909
Lewis, Isaac H	Killam	1001	Apr 22, 1909
Long, Geo S	Nainao	1039	Apr 29, 1909
Lunder, Andrew H	Westrose	1045	Apr 30, 1909
Leonard, Jas F	Seven Persons	1049	May 1, 1909
Larson, Edwin H	Seven Persons	1050	May 1, 1909
Lindsey, Horace F	Strathcona	1075	May 26, 1909
Larson, Harry	Langdon	1079	June 1, 1909
LaBonte, Fred	Calgary	1125	Sept 21, 1909
Laventure, Arthur	Beaumont	1146	Sept. 25, 1909
Lawrence, Herman M	Ross Creek	1162	Sept 29, 1909
Long, Herbt. Wm	Calgary	1187	Dec 17, 1909
Lawrence, Sheridan	Fort Vermilion	741	Aug 6, 1908
Laroux, Oliver	Chipewyan	742	Aug 6, 1908
Lloyd, Roy A	Carstairs	761	Sept. 11, 1908
Love, Thos	Hicksburg	835	Oct. 2, 1908
Morkin, Jno	Dunbow	* 39	Dec 1, 1899
Martin, M. Z	Morinville (suspended) .	* 56	May 28, 1900
Mitchell, Tim W	Red Deer	*119	Feb 7, 1901
Mather, E M	Calgary	*133	June 6, 1901
Morden, Jacob R	Lacombe	*187	Dec. 18, 1901
Moore, John R	Innisfail	*190	Dec 18, 1901
Munier, Wilfred	Stony Plain	*199	Dec 18, 1901
Miller, Philip	Morinville	*201	Dec 18, 1901
Meneely, Wm	Edmonton	*204	Dec 18, 1901
Mikesthus, Michael	Leduc	*210	Dec 18, 1901
Morkeberg, D	Innisfail	*232	Apr 23, 1902
Martin, Henry E	Wardner (dup)	*854	June 13, 1905
Mooney, W. S.	Lacombe	*513	Apr. 18, 1904
Murray, A. A	St. Albert	*536	Apr 18, 1904
Meumer, J H	Morinville	*537	Apr. 18, 1904
Meredith, Wilbert	Edmonton	*538	Apr. 18, 1904
Mathews, Geo	Strathcona	*636	Oct 15, 1904
Morgan, Oscar	Strathcona	*643	Oct. 15, 1904
Maxfield, W. H	Namao	*646	Oct 15, 1904
Mead, Francis A	Pincher Creek	*678	Dec 30, 1904
May, Daniel	Blairmore	*681	Jan 21, 1905

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SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
<i>Third Class—Continued</i>			
Mew, John	Calgary	*750	Mar. 24, 1905
Muir, Wm J	Ponoka	*764	Mar. 24, 1905
Marler, Walter	Clover Bar	*799	Mar. 31, 1905
Mohr, John J	Edmonton	*870	July 6, 1905
Morel, H F	Edmonton	37	Sept. 16, 1905
Melnyk, Wm	Star	40	Sept. 18, 1905
Mason, Jas. D	Clover Bar	43	Sept. 18, 1905
Moss, Richard	Edmonton	*81	Mar. 26, 1905
Mahood, Robt F	Buford	94	Apr. 11, 1906
Murray, Dan L	Bentley	105	Apr. 24, 1906
Mitchell, Jos C	Tees	111	Apr. 25, 1906
Moritz, Henry C	Olds	146	May 31, 1906
Moritz, Louis J A	Olds	148	May 31, 1906
Morkeberg, Holger	Markerville	157	May 31, 1906
Maxwell, Tim	Claresholm	180	Aug. 13, 1906
Murray, Thos N	Medicine Hat	171	Aug. 11, 1906
Muir, Geo A	Morrissey	182	Apr. 13, 1906
	(dup)	877	Feb. 1, 1909
Maunchaw, Aug	Stratheona	218	Sept. 13, 1906
Mead, Wm	Edmonton	221	Sept. 13, 1906
Maxfield, Geo. A	Namoo	236	Sept. 13, 1906
Miller, Dick F	Blackfalds	241	Sept. 27, 1906
Malcher, Chas	Wetaskiwin	246	Oct. 5, 1906
Miller, Jones P	Delnorte	334	May 31, 1907
Morrison, Avard L	Calgary	348	June 4, 1907
Martin, Jno C B	Calgary	362	June 4, 1907
Moody, Jas. Wm	Brocket	363	June 4, 1907
Morter, Chas J	Iowalta	365	June 7, 1907
Miller, Wm. M	Brant	420	June 19, 1907
Morrow, Jos W	Roundup	460	July 15, 1907
Meldrum, David (Jr)	Raymond	466	July 15, 1907
Manning, Jas A	Cowley	471	July 16, 1907
Munro, Milo	Gleichen	484	Aug. 28, 1907
Martin, Chas. A	High River	487	Sept. 4, 1907
Miller, Fred C	Cooking Lake	416	Oct. 15, 1907
Munro, Fred	Innisfail	510	Oct. 22, 1907
Morden, Jno	Lacombe	533	Oct. 28, 1907
	(dup.).	925	Mar. 30, 1909
Malchow, G. E. A	Earlville	538	Oct. 28, 1907
Mignault, Jos. C	Calgary	579	Mar. 23, 1908
Middleton, Archie C	Nanton	583	Mar. 23, 1908
Marshall, Frank P	Spring Point	600	Apr. 8, 1908
May, Alex. S	Lille	632	Apr. 9, 1908
Millar, T B	Burnt Lake	641	Apr. 14, 1908
Marson, Chas. H	Medicine Hat (dup)	735	July 15, 1908
Mitchell, Franklin A	Medicine Hat	664	Apr. 27, 1908
Miles, Jas	Vermilion	667	Apr. 27, 1908
Mark, David McK	Mannville	672	Apr. 27, 1908
	(dup).	1189	Dec. 29, 1909
Marler, Jas T	Crossfield	683	May 1, 1908
Martin, Lands	Stettler	686	May 1, 1908
Millar, Jno F	Bentley	694	May 6, 1908
Munro, Alex. A	Lockhart	696	May 6, 1908
Morris, Wm. H	Wetaskiwin	698	May 6, 1908
Maurice, Frank E	Edmonton	730	May 26, 1908
Maxwell, Jno W	Cochrane	731	June 12, 1908
Morris, Jas E	Lochend	732	June 12, 1908
Morris, Jas W	Canmore	734	June 29, 1908
Morton, Lewis R	Athabasca Landing	745	Aug. 6, 1908
Mott, Henry J	Red Deer	752	Sept. 2, 1908

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SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>Third Class—Continued</i>			
Murray, Jas	Murray Valley	757	Sept 8, 1908
Mortelette, H. C	Edmonton	778	Sept. 18, 1908
Masse, Louis	Legal	788	Sept. 21, 1908
Mulligan, Geo. B	Bon Accord	789	Sept. 21, 1908
Miller, Jacob	Stony Plain	790	Sept. 21, 1908
Marshall, Robt E	Raymond	852	Oct 6, 1908
Murphy, Edward F	Strathcona	875	Jan. 8, 1909
Morris, Andrew	Calgary	882	Mar. 19, 1909
Mackin, John	Lethbridge	902	Mar 24, 1909
Mitchell, Ava D	Aldersyde	935	Apr 2, 1909
Munson, Jas B	Reid Hill	936	Apr 2, 1909
Moore, Corey G	Macleod	954	Apr 7, 1909
Mudiman, David L	Macleod	955	Apr. 8, 1909
Myers, James	Claresholm	970	Apr. 16, 1909
Myers, Roy C	Claresholm	971	Apr 16, 1909
Mulligan, Jos	Canmore	1026	Apr. 28, 1909
Mundell, Wm. G R	Lethbridge	1054	May 3, 1909
Monson, Jos	Camrose	1092	Sept 7, 1909
Miller, Jas	Diamond City	1104	Sept. 15, 1909
Munro, Claud	Lethbridge	1105	Sept 15 1909
Marr, Robt	Edmonton	1164	Sept 29 1909
Miller, Herman A	Edmonton	1175	Oct 27, 1909
Morris, John	Wild Horse	1177	Nov 13, 1909
McKernan, Jas	Edmonton	* 28	Oct 29, 1899
McDonald, Findlay	Sturgeon	* 86	Oct 23, 1900
McLellan, Jno	Fort Saskatchewan	* 93	Nov. 15, 1900
McLeod, M. J	Fort Saskatchewan	* 94	Nov 15, 1900
McKellar, Jno	Fort Saskatchewan	* 95	Nov 15, 1900
McKinley, Murdoch	Stony Plain	*203	Dec. 18, 1901
McLean, Archibald	Lethbridge	*250	Aug 18, 1902
McLean, Alix M	Calgary	*247	Mar 9, 1902
McGarry, Fred	Lacombe	*255	Apr 24, 1903
McDonald, Wm	Penhold	*369	May 13, 1903
McConnell, Jas. R	Red Deer	*372	May 13, 1903
McAuley, Jas	Rabbit Hill	*	June 10, 1903
McLean, Jas A	Star	*539	Apr 18, 1904
McDiarmid, A D	Edmonton	*540	Apr. 18, 1904
McFadyen, Jno. R	Strathcona	*553	June 3, 1904
McDonald, Malcolm	Mountain Hill	*594	Sept 14, 1904
McLeod, D J W	Strathcona	*641	Oct . 15, 1904
	(dup).	*766	Sept 11, 1908
McKenzie, Dan	Lacombe	*760	Mar. 24, 1905
McInroy, Paul	Edwell .	*773	Mar. 24, 1905
McEachern, Malcolm	Leduc	*792	Mar. 27, 1905
McCarthy, Jas	Calmar	*793	Mar. 27, 1905
McPhail, Jno	Bellevue	8	Sept 16, 1905
McDonald, Dan	Morinville	66	Mar. 16, 1906
McLaughlin, Chas	Namoo	68	Mar. 16, 1906
McCallum, Albert W	Beaver Lake	95	Apr 18, 1906
McAnnaly, Peter J	Crossfield	153	May 31, 1906
McLean, Wm. Jno	Hillcrest	188	Aug 13, 1906
McPherson, Jas P	Bentley	248	Oct 5, 1906
McNutt, Watson	Medicine Hat	262	Apr 6, 1907
McCune, Oscar	Red Deer	289	May 20, 1907
McGregor, Wm. W	Blackfalds	298	May 20, 1907
McDonnell, Archie A	Calgary	339	June 4, 1907
McIvor, David S	Marwayne	388	June 14, 1907
McWhirter, Jas A	Camrose	408	June 14, 1907
McAlister, Donald C	Lethbridge	447	July 15, 1907
	(dup.)	1088	Aug. 20, 1909

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SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
<i>Third Class—Continued</i>			
McDonald, Geo A	Pincher Creek	454	July 15, 1907
McAlister, Alfred	Claresholm	468	July 15, 1907
McGhan, Silas S	Clover Bar	493	Oct. 15, 1907
McLean, Laughlin	Innisfail	512	Oct. 22, 1907
McGuire, Thos	Lacombe	535	Oct. 28, 1907
McLean, Garnet W	Calgary	558	Jan. 20, 1908
McPhee, Jno	Edmonton	596	Apr. 2, 1908
McDonald, Hugh D	Frank	605	Apr. 8, 1908
McNarland, Robt Jas	Granum	608	Apr. 8, 1908
McCutcheon, R. H	Pincher Creek	631	Apr. 9, 1908
McRae, Duncan A	Taber	633	Apr. 9, 1908
McRoberts, And	Pine Lake	644	Apr. 14, 1908
McDougall, Wm	Mewassin	655	Apr. 22, 1908
McIvor, Wm	Marwayne	668	Apr. 27, 1908
McDermid, Alex. M	Elkwater	703	May 14, 1908
McIntosh, Duncan D	Three Hills	795	Sept. 22, 1908
McIvor, Wm K	Edmonton	905	Mar. 26, 1909
McCall, Samuel D	Pincher Creek	932	Apr. 1, 1909
McMillan, Hugh A	Edmonton	943	Apr. 3, 1909
McPherson, Jabez B	Bentley	946	Apr. 6, 1909
McKenzie, John A	Edmonton	1067	May 21, 1909
McPherson, Adam	Red Deer	1089	Apr. 24, 1909
McKenzie, Geo	Lethbridge	1106	Sept 15, 1909
McKenzie, Wesley J	Brant	1126	Sept 21, 1909
McCausland, Chas A	Calgary	1127	Sept 21, 1909
McCallum, Jos	Beaver Lake	1163	Sept 29, 1909
Nelson, Frank	Wetaskiwin	* 60	May 30, 1900
Nichol, David	Innisfail	*191	Dec. 18, 1901
Noyes, Dan E	St. Albert	*197	Dec. 18, 1901
Nichols, Jas. J	Edmonton	*358	May 13, 1903
Niven, Jno	Lethbridge	*451	Oct. 6, 1903
Nehr, Wm. A	Edmonton	75	Mar. 26, 1906
Nehr, Henry R	Edmonton (dup)	245	Sept 28, 1906
Noel, Kenneth E	Canyon	113	Apr. 25, 1906
Nelson, Wilfred	Calgary	119	Apr. 30, 1906
Nelson, Arthur W	Edmonton	132	May 10, 1906
Neeb, Louis	Edmonton	161	June 5, 1906
Nichols, Alex. J	Edmonton	220	Sept. 13, 1906
Neis, Geo M	Lamerton	228	Sept 20, 1906
Norhe, Hackon C	Edmonton	501	Oct. 15, 1907
Nixon, Robt. J	Crossfield	524	Oct. 24, 1907
Neis, Philip	Lamerton	530	Oct. 24, 1907
Nielson, Geo	Haynes	540	Oct. 28, 1907
Nadeau, T. Eudore	Lavoy	675	Apr. 27, 1908
Nichols, Wm R	Edmonton	729	May 26, 1908
Neufeld, Abraham J	Neapolis	762	Sept. 11, 1908
Neufeld, Peter W	Noelton	763	Sept. 11, 1908
Neate, Harry	Edmonton	779	Sept. 18, 1908
Newsome, Wm. H	Calgary	796	Sept. 22, 1908
Norgaard, Peter J	Calgary	797	Sept. 22, 1908
Norton, Paul	Reid Hill	836	Oct. 2, 1908
Nemsgern, Jno	Claresholm	837	Oct. 22, 1908
Neville, Fred R	Mountain View	853	Oct. 6, 1908
Norrie, Jas	Medicine Hat	1051	May 1, 1909
Nelson, Peter I	Amisk	1093	Sept. 7, 1909
Naylor, Edward H	Morinville	1165	Sept. 29, 1909
Nelson, Chrest	Medicine Hat	1186	Dec. 17, 1909
Ottewell, Richard P	Edmonton	27	Oct. 9, 1899

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO OF CERT	DATE OF ISSUE
<i>Third Class—Continued</i>			
Oliver, Ernest H	Calgary	*468	Nov. 6, 1903
Omand, Jno	Edmonton	*522	Apr 14, 1904
Olsen, H. B	Ellershe	*542	Apr 18, 1904
Oliver, Wesley N	Wostok	*314	Apr 14, 1905
Olsen, Gilbert E	Star	*815	Apr 14, 1905
Ottowell, Albert	Lover Bar	77	Mar. 26, 1906
O'Dell, Geo. W	High River	198	Aug. 13, 1906
	(dup.).	733	June 22, 1908
Orford, Andrew B	Macleod	478	July 15, 1907
Oberg, Knute L	Strathcona	491	Oct. 15, 1907
Oliver, Peter C	Calgary	562	Jan. 20, 1908
Oakes, Louis D	Claresholm	567	Mar. 23, 1908
O'Connor, Jno	Mossleigh	568	Mar 23, 1908
Oler, Geo., Jr	Stirling	602	Apr. 8, 1908
Orser, Jno R	Tristram	690	May 5, 1908
O'Reilly, C	Bells Hill	784	Sept 18, 1908
Olson, Matz	Wilton Park	817	Sept 28, 1908
Oster, Carl	Good Hope	818	Sept. 28, 1908
Orr, Alf E	Irvine	854	Oct 6, 1908
Osborne, Homer	Faber	855	Oct 6, 1908
Orser, Harry	Calgary	883	Mar 19, 1909
Olsen, Elmer A	Prairie View	891	Mar 24, 1909
Ostby, Anton	Strathmore	1027	Apr. 28, 1909
O'Brien, Roy	Raymond	1107	Sept 15, 1909
Orr, Joshua	Irvine	1154	Sept 28, 1909
Pierce, Geo. J	Red Deer	* 46	Mar 8, 1900
Pearce, Jas	Edmonton	* 87	Oct 23, 1900
Putman, Albert E	Edmonton	*202	Dec 18, 1901
Powell, Jas A	Edmonton	*208	Dec 18, 1901
Pearce, Wm	Edmonton	*229	Apr 23, 1902
Pimm, Jno	Lethbridge	*258	Aug 18, 1902
Pullshuy, Wm	Star	*384	June 23, 1903
Pullesen, Peter	Calgary	*492	Mar. 14, 1904
Piper, F E	Red Deer	*546	Apr. 18, 1904
Porter, Gerard A	Red Deer (dup)	*851	June 6, 1905
Peterson, Robt F	Wetaskiwin	*789	Mar. 27, 1905
Pipegrass, Fred'k	Raymond	24	Sept. 16, 1905
Pearson, Herbert S	Red Deer	62	Dec. 29, 1905
Peffuger, Geo	Wetaskiwin	98	Apr. 20, 1906
Peterson, Martin E	Claresholm	179	Aug. 13, 1906
Pitmann, Wm. T	Wetaskiwin	279	May 15, 1907
Pratt, Arthur W	Three Hills	300	May 23, 1907
Patterson, Johnston	Strathcona	308	May 23, 1907
Pyle, Joshua ..	Langdon	354	June 4, 1907
Peterson, Alfred L	Heather Brae	397	June 14, 1907
Pearson, Augustus	Bellevue	450	July 15, 1907
Phillips, Fred H	Frank	476	July 15, 1907
Pylypow, Wasyl	Star	504	Oct. 15, 1907
Prehn, Emil N	Strome	508	Oct 15, 1907
Peterson, Fred A	Wetaskiwin	529	Oct. 28, 1907
Page, Sam Jas	Lacombe	532	Oct. 28, 1907
Potter, Jno	Calgary	557	Jan 20, 1908
Pethick, Roy W	Okotoks	574	Mar. 23, 1908
Pozin, Otto E	Claresholm	577	Mar. 23, 1908
Peat, Geo. A	Lethbridge	611	Apr. 8, 1908
Power, Eugene	Lethbridge	615	Apr. 8, 1908
Peat, Jas. T	Lethbridge	619	Apr 8, 1908
Phillips, Walter I	Magrath	620	Apr. 9, 1908
Peters, Andy . . .	Blairmore	621	Apr. 9, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act —Continued.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
<i>Third Class—Continued</i>			
Peterson, Anton	Evarts	638	Apr 14, 1908
Parker, Ed W	Innisfaul	642	Apr 14, 1908
Piersall, Wm. S	Harmattan	646	Apr. 14, 1908
Putnam, Orlean E	Edmonton	666	Apr. 27, 1908
Pfitzeumier, Herman	Stettler	687	May 1, 1908
Paul, Jos., Jr	Prague	717	May 18, 1908
Phillips, Wm J	Clover Bar	725	May 18, 1908
Papineau, Francis C	Battle Lake	727	May 18, 1908
Parker, David L	Penhold	753	Sept. 3, 1908
Parmelee, J. M	Bluff Centre	771	Sept. 14, 1908
Park, Hugh A	Placington	785	Sept 18, 1908
Parsons, Harry	Okotoks	803	Sept 22, 1908
Philpott, Jos	Bawlf	807	Sept. 25, 1908
Podgarmy, Mike	Leduc	819	Sept 28, 1908
Porter, Wm	Stavely	838	Oct. 2, 1908
Patterson, Sam. F	Granum	856	Oct 6, 1908
Peak, Jos. H	Pokahasset	870	Nov. 26, 1908
Payzant, Jno. M	Edmonton	873	Dec 23, 1908
Paul, Karl	Strathcona	880	Mar 4, 1909
Prout, Thos. R	Medicine Hat	904	Mar 26, 1909
Peterson, Martin O	Hicksburg	937	Apr 2, 1909
Passmore, Thos. A	Content	964	Apr 13, 1909
Pouliot, Emil E	Taber	1014	Apr. 25, 1909
Pickering, Geo	Canmore	1030	Apr. 28, 1909
Pierce, Alfred	Lamont	1040	Apr. 29, 1909
Parsons, Henry	Lac Ste Anne	1041	Apr. 29, 1909
Purmal, Jacob	Medicine Hat	1052	May 1, 1909
Paget, Thos J	Claresholm	1128	Sept 21, 1909
Parken, Jos	Carman	1129	Sept 21, 1909
Quigley, Thos	Cochrane	546	Nov 22, 1907
Quigley, Jas. S	Cochrane	874	Dec 31, 1908
Quinn, Wm B	Edmonton	1188	Dec 27, 1909
Robinson, Jno	Edmonton	* 26	Oct. 9, 1899
Rutherford, Jno	Medicine Hat	* 82	Sept 29, 1900
Ross, Thos. G	Poplar Lake	* 97	Nov. 15, 1900
Rattray, Archie B	Edmonton	*108	Dec. 15, 1900
Rafie, Andrew	Bon Accord	*301	Oct 2, 1902
Ryan, Jas	Wetaskiwin	*316	Oct. 22, 1902
Redig, Valentine	Lacombe	*514	Apr. 18, 1904
Rivet, Arthur	Morinville	*549	May 26, 1904
Ramsay, Jas	Coleman	620	Oct 27, 1905
Rice, Geo. A	Strathcona	39	Sept 18, 1905
Rath, Edw. L	Conjuring Creek	93	Apr. 11, 1906
Read, Edgar A	Manfred	102	Apr. 20, 1906
Reese, Harry E	Wetaskiwin	137	May 10, 1906
Roulston, Robt	Bowden	160	May 31, 1906
Robearge, Wm	Vegreville	215	Sept. 13, 1906
Rorem, T. A	Duhamel	233	Sept 20, 1906
Rockstad, Abraham	Wetaskiwin	247	Oct. 5, 1906
Rath, Ernest W	Conjuring Creek	277	May 15, 1907
Royle, Wm. H	Calgary	347	June 4, 1907
Ramey, Morgan	Vegreville	382	June 14, 1907
Reay, Jno. G	Lamerton	391	June 14, 1907
Robinson, N. J	DeWinton	425	June 19, 1907
Rydberg, Emil W	Glenview	432	June 19, 1907
Richards, Wm	Lundbreck	920	Mar. 30, 1909
Rice, Wm	Andrew	500	Oct. 15, 1907
Ross, Dexter A	Strathcona	507	Oct. 15, 1907

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SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO OF CERT	DATE OF ISSUE
<i>Third Class—Continued</i>			
Rice, Robt	Calgary	580	Mar. 23, 1908
Rear, Chas. W	Mayton	645	Apr. 14, 1908
Raymer, Oliver	Didsbury	653	Apr. 15, 1908
Russell, Chas. G	Brockville	695	May 6, 1908
Ramsey, Ralph H	Vegreville	722	May 18, 1908
Rix, Percy H	Wetaskiwin	728	May 26, 1908
Rattray, Alex	Dog Pound	764	Sept. 11, 1908
Rude, Jno. N	Priddis	804	Sept. 24, 1908
Ronaghan, Albert H	Vernulion	820	Sept. 28, 1908
Reid, Jas. Robt	Clareholm	839	Oct. 2, 1908
Rigby, Wm. T	Clareholm	840	Oct. 2, 1908
Rills, Wilson H	Clareholm	841	Oct. 2, 1908
Richards, Neal S	Aetna	857	Oct. 6, 1908
Rattray, Thos. A., Jr	Edmonton	*550	May 26, 1904
Ritchie, John	Calgary	884	Mar. 19, 1909
Rothwell, John T	Lethbridge	896	Mar. 24, 1909
Robinson, Wm	Edmonton	940	Apr. 3, 1909
Russell, John	Gaetz Valley	947	Apr. 6, 1909
Rice, Augustus M	Carmanagay	972	Apr. 16, 1909
Riches, Chas. B	Edmonton	984	Apr. 20, 1909
Redshaw, Arthur R	Lethbridge	1055	May 3, 1909
Robinson, H. M	Lethbridge	1059	May 4, 1909
Rundgren, John S	Edmonton	1076	May 26, 1909
Robertson, Frank E	Gleichen	1130	Sept. 21, 1909
Richardson, Thos	Calgary	1131	Sept. 21, 1909
Roy, Jos. R	Stony Plain	147	Sept. 25, 1909
Stadelbauer, Simon	Spruce Grove	*4	Sept. 18, 1899
Stewart, Thos. H	Strathcona	*30	Oct. 9, 1899
Smith, Wm. F	Athabasca Landing	*38	Nov. 28, 1899
Shaw, Jno. Y	Midnapore	*40	Dec. 1, 1899
Saunders, Ehas T	Lethbridge	*47	Mar. 23, 1900
Snider, Jno. B.	Okotoks	*68	July 19, 1900
Steffles, Ferd.	Morinville	*90	Nov. 15, 1900
Schlegel, Frank	Duhamel	*118	Jan. 26, 1901
Stewart, Archie	Edmonton	*161	Sept. 7, 1901
Stulz, Frank	St. Albert	*196	Dec. 18, 1901
Staffles, Jos	Morinville	*91	Nov. 15, 1900
Simpson, Robt. N	Edmonton	*198	Dec. 18, 1901
Smith, Sam. W	Leduc	*228	Apr. 23, 1902
Still, Wm	Vegreville	*328	Dec. 18, 1902
Stewart, Jas. A	Beaver Lake	*329	Dec. 18, 1902
Shields, Wm. K	Strathcona	*363	May 13, 1903
Simonson, Henry	Northern	*378	June 6, 1903
Smith, Larnet E	Ponoka	*387	July 13, 1904
Schatz, Robt.	Strathcona	*635	Oct. 15, 1904
Swift, W. L	Edmonton	*647	Oct. 15, 1904
Sloan, Wm. J	Calgary (dup.)	*145	May 1906
Swingle, Walter A.	Didsbury	*751	Mar. 24, 1905
Scott, Geo. W	Innisfail	*758	Mar. 24, 1905
Spannel, Jno	Leduc	*796	Mar. 27, 1905
Scott, Sam. R	Olds	*797	Mar. 28, 1905
Stafford, Jno	Sollman	*817	Apr. 14, 1905
Short, Walker	Mewassin	*826	May 13, 1905
Schullh, Angelo	Lille	2	Sept. 16, 1905
Skouson, Z. N	Raymond	21	Sept. 16, 1905
Skouson, Peter N	Raymond	25	Sept. 16, 1905
Sherwood, L. H.	Beaumont	29	Sept. 16, 1905
Swedfeger, Amos	Leduc	41	Sept. 18, 1905
Svarich, Peter	Kolomea	76	Mar. 26, 1906

*Indicates Certificate was granted by North-West Territories

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act —*Continued*

NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>Third Class —Continued</i>			
Suru, Jno	Edmonton	78	Mar 26, 1906
Schroeder, Ed H	High River	120	Apr 30, 1906
Sherlin, Adam	Red Deer	128	Mar 4, 1906
Smith, Chas W	Foreman	131	May 10, 1906
Stephenson, Jas McC	Innisfail	155	May 31, 1906
Speakman, Alfred	Penhold	159	May 31, 1906
Sanders, T Aron	Cardston	166	Aug. 11, 1906
Stephen, Jas	Frank	175	Aug 13, 1906
Stannk, Isadore	Frank	176	Aug 13, 1906
Stillman, Geo F	Spring Point	181	Aug 13, 1906
Stuckey, Richard	Pincher Creek	185	Aug 13, 1906
Scribner, Jos	Leavings	190	Aug 13, 1906
Smith, Jno. H	Nanton	195	Aug 13, 1906
Stevens, H E	Macleod	202	Aug. 13, 1906
Smith, David H	Calgary	206	Aug. 25, 1906
Somerset, Robt N	Vermilion	210	Sept. 13, 1906
Smith, Jno	Pakan	211	Sept 13, 1906
Stevens, Harry L	Olds	240	Sept 27, 1906
Small, Jesse J	Didsbury	243	Sept 26, 1906
Searth, Walter	Calgary	254	Dec. 1, 1906
Santroek, J. M	Edmonton	269	Apr. 29, 1907
Sorenson, Nels G	Kellman	283	May 15, 1907
Smith, Chas A	Red Deer	285	May 15, 1907
Smith, Sam. T	Leslieville	287	May 20, 1907
Schmidt, Henry W	Red Deer	288	May 20, 1907
Salzl, Rudolph	Morinville	307	May 23, 1907
Swingle, Gala R	Didsbury	310	May 29, 1907
Scott, Wm	Three Hills	321	May 29, 1907
Stagg, Jno. C	Calgary (dup.)	805	Sept 22, 1908
Stearns, Chas A	Carstairs	356	June 4, 1907
Siddall, Wm. M.	Neapolis	360	June 4, 1907
Saunders, Abraham	Lacombe	372	June 7, 1907
Stevens, Clouston H	Erskine	378	June 7, 1907
Swan, Jno	Wesington	379	June 7, 1907
Scoville, Wm A	Earling	413	June 14, 1907
Schattschneider, Herman	Ellerslie	415	June 14, 1907
Sinclair, Donald	Cayley	422	June 19, 1907
Sallendach, Robt	Brant	427	June 19, 1907
Sparrow, Jas W	Lethbridge	440	June 20, 1907
Stuenkel, Jas F	Claresholm	452	July 15, 1907
Svean, Ole	Claresholm (dup.).	483	Aug 13, 1907
Salmon, Jno. F	Raymond	458	July 15, 1907
Spencer, Jno. H	Medicine Hat	480	July 24, 1907
Somerset, Thos B	Edmonton	494	Oct. 15, 1907
Santroek, Harvey S	Edmonton	498	Oct 15, 1907
Skolitzky, Jno. J	Calgary	520	Oct. 24, 1907
Spreeman, Allen	Didsbury	522	Oct. 24, 1907
Shurkey, Jno W	Lacombe	534	Oct. 28, 1907
Simmonds, Henry	Banff	547	Nov. 26, 1907
Stanworth, Stephen	Bankhead	549	Dec. 5, 1907
St George, Stephen	Macleod	604	Apr. 8, 1908
Schroeder, Waldemer,	Macleod	607	Apr. 8, 1908
Scott, David S	Coleman (dup.).	923	Mar. 30, 1909
Smith, Fred	Coleman	610	Apr. 8, 1908
Simpson, David A	Macleod	622	Apr. 9, 1908
Sorenson, Willard	Leavitt	629	Apr. 9, 1908
Speight, Frank	Red Deer	637	Apr. 14, 1908
Sawatzky, Bernard P	Didsbury	650	Apr. 15, 1908
Slater, Alfred	Medicine Hat	661	Apr. 27, 1908
Saunders, Wallace	Conjuring Creek	674	Apr. 27, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act —*Continued.*

NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>Third Class—Continued</i>			
Stearns, Harvey N	Innisfree	679	Apr. 27, 1908
Scoonover, Frank	Content	688	May 1, 1908
Story, Hillard M	Talbot	692	May 6, 1908
Stinson, Fred	Hastings Coulee	706	May 18, 1908
Svarich, And	Vegreville	723	May 18, 1908
Snyder, Jacob F	Magrath	749	Aug 26, 1908
Sanborn, Francis A	Innisfail	758	Sept. 8, 1908
Stephen, J. G	Edmonton	780	Sept. 18, 1908
Sheffiel, David	Edmonton	821	Sept. 21, 1908
Shandro, Andrew S	Shandro	822	Sept 28, 1908
Stafford, Geo. F	Pincher Creek	858	Oct. 6, 1908
Stenhauer, Augustine	Saddle Lake	866	Oct. 27, 1908
Smith, Anthony A	Knee Hill	889	Mar. 20, 1909
Steeves, Lorne W	Lethbridge	894	Mar. 24, 1909
Schwartz, Chas	Lille	921	Mar. 30, 1909
Simpson, John T	Coleman	922	Mar. 30, 1909
Sutor, Wm	Gladys	938	Apr. 2, 1909
Stroud, W D	Crossfield	948	Apr 6, 1909
States, John G	Carstairs	949	Apr. 6, 1909
Smedstad, John	Claresholm	973	Apr 16, 1909
Schumers, Louis	Willing	992	Apr. 20, 1909
Stern, Fred	Bawlf	1002	Apr. 22, 1909
Stenberg, Fred	Harland	1003	Apr 22, 1909
Snyder, Chas. G	Calgary	1028	Apr. 28, 1909
Scott, Geo T	Gleichen	1029	Apr. 28, 1909
Scarr, Jos. A	Bankhead	1031	Apr 28, 1909
Sampert, Julius	Bruederheim	1042	Apr 29, 1909
Sinclair, Walter W. P	Medicine Hat	1053	May 1, 1909
Scott, Fred	Strathcona	1068	May 21, 1909
Schaumleffel, John	Lloydminster	1069	May 21, 1909
Schaumleffel, Clifford C	Lloydminster	1070	May 21, 1909
Stein, Philip	Lethbridge	1073	May 26, 1909
Stubbs, Albert W	Medicine Hat	1082	June 18, 1909
Scarfe, Wm. H. T	Innisfail	1090	Aug. 24, 1909
Sheppard, Frank H	Wetaskiwin	1096	Sept. 7, 1909
Samis, Chas	Calgary	1132	Sept 21, 1909
Schench, Wm. A	Thigh Hill	1133	Sept 21, 1909
Simon, Herbt	Nanton	1134	Sept. 21, 1909
Summersgill, Robt	Calgary	1135	Sept. 21, 1909
Spencer, Fred	Cardston	1141	Sept 24, 1909
Smith, John	Kitscoty	1148	Sept. 25, 1909
St. John, Myron	Edmonton	1166	Sept 29, 1909
Trimble, H. W	Red Deer	*195	Dec 18, 1901
Townsend, R. C	Canmore	*314	Oct. 20, 1902
Turner, Leonard J	Gleichen	469	Nov 6, 1908
Terry, Peter	Okotoks	*470	Nov 6, 1903
Turnbull, Robt	Strathcona	*519	Apr. 8, 1904
Trussler, A. E	Highland Park	*612	Sept. 27, 1904
Tennison, Jno. C	Leduc	*722	Mar 3, 1905
Trimbel, Clarence A	Red Deer	*782	Mar. 24, 1905
Tillapaugh, Jno	Warwick	48	Sept 23, 1905
Tanner, Wm. Jos	Raymond	15	Sept 16, 1905
Thomas, A I	Frank	53	Oct. 31, 1905
	(dup)	890	Mar. 24, 1909
Tabacchi, Stephen	Lethbridge	26	Sept. 16, 1905
Treasure, Sam	Claresholm	58	Dec. 19, 1905
Trimbley, Miles I	Edmonton	73	Mar. 26, 1906
Taylor, David A	Red Deer	162	July 7, 1906
Tufts, Josiah	Taber	187	Aug. 13, 1906

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
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NAME	ADDRESS	NO OF CERT	DATE OF ISSUE
<i>Third Class—Continued</i>			
Turner, Ernest H	Warwick	214	Sept. 3, 1906
Thompson, Chas	Red Deer	297	May 20, 1907
Towers, Fred J	Red Deer	299	May 20, 1907
Traub, Wm	Didsbury	325	May 29, 1907
Telford, Ernest E	Vermilion	330	May 31, 1907
Tennant, Wm. J	Calgary	350	June 4, 1907
Thompson, Geo. A	Red Willow	374	June 7, 1907
Tiede, August	Stettler	375	June 7, 1907
Trussler, A. D	Strathcona	416	June 14, 1907
Thrum, Chas. W	High River	433	June 19, 1907
Turner, Geo. H	Taber	445	July 15, 1907
Tucker, Glines	Stavely	463	July 15, 1907
Tollestrup, Christian F	Raymond	472	July 15, 1907
Thwaytes, Lanceslot	Edmonton	497	Oct. 15, 1907
Tewsley, Jas. S	Carstairs	525	Oct. 24, 1907
Thompson, Thos G	Edmonton	589	Apr. 2, 1908
Turnbull, W. N	Penhold	634	Apr 14, 1908
Taylor, Orrin O	Harmattan	647	Apr 14, 1908
Tidball, Wm. E	Carstairs	651	Apr. 15, 1908
Taylor, Wm. L	Killam	705	May 18, 1908
Thronsdon, Theo	Camrose	714	May 18, 1908
Teardiff, Jos. E	Fort Vermilion	743	Aug. 6, 1908
Toews, Cornelius F	Stern	765	Sept. 11, 1908
Tronnes, Peter	Dorinlee	808	Sept. 2, 1908
Todd, Walker	Macleod	956	Apr. 9, 1908
Taylor, Wm J	Lochinvar	976	Apr 17, 1909
Turner, Jas. A	Taber	1015	Apr 25, 1909
Trono, Louis	Canmore	1032	Apr. 28, 1909
Trono, Emile	Canmore	1033	Apr. 28, 1909
Townsend, Leon E	Sterling	1085	July 16, 1909
Thomas, Wm. H	Lloydminster	1167	Sept 29, 1909
Todd, Wm	Edmonton	1168	Sept. 29, 1909
Tillapaugh, John F	Vegreville	1169	Sept. 29, 1909
Utas, Peter	Wetaskiwin	*331	Feb. 13, 1903
Umbach, Wm	Spruce Grove	*357	May 13, 1903
Umbach, Jno. H	Spruce Grove	67	Mar 16, 1906
Urback, Albert F	Calgary	258	Jan 22, 1907
Umbach, Edgar A	Spruce Grove	656	Apr 22, 1908
Underwood, Harry A	Emsbury	689	May 1, 1908
Ullman, Albert	Granum	842	Oct. 2, 1908
Vogel, Wilhelm	Strathcona	*22	Oct. 2, 1899
VanMeter, Chas. E	Millet	*212	Dec. 18, 1901
Vanacker, Louis	St. Albert	*373	May 13, 1903
Vig, Oscar O	Bentley	*763	Mar. 24, 1905
Veeder, Robt. B	Wetaskiwin	*791	Mar 27, 1905
VanSellick, Jacob	Edmonton	32	Sept. 16, 1905
Van Wegan, Louis	Raymond	42	Sept. 18, 1905
Vogel, Ferdinand	Strathcona	45	Sept. 18, 1905
Vig, Casper O	Bentley	110	Apr. 25, 1906
Vaughan, Frank	Calgary	336	June 14, 1907
VanWinkle, Howard	High River	430	June 19, 1907
VanWinkle, Chester A	High River	439	June 19, 1907
Venables, Wm	Medicine Hat.	482	Aug. 1, 1907
Veith, F. Wm	Inga	490	Oct. 15, 1907
Vesseur, Moses	Sylvan Lake	511	Oct. 26, 1907
Vlasak, Rudolph	Wesington	539	Oct. 28, 1907
Vandburgh, Jas. N	Calgary	587	Mar. 23, 1907
Vanyel, Chas	Edmonton	597	Apr. 2, 1908

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SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued*

NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>Third Class—Continued</i>			
VanMeter, Jacob A	Millet	823	Sept. 29, 1908
Valentine, Marcon F	Bellevue	924	Mar. 30, 1909
Vaughn, Clifford E	Wetaskiwin	1097	Sept. 7, 1909
VanKluck, Alerie	Reid Hill	1136	Sept. 21, 1909
Witmer, Abram	Strathcona	*29	Oct 9, 1899
Wilson, Jas	Calgary	*65	July 19, 1900
Wulff, Nick	Edmonton	*207	Dec. 18, 1901
Walker, Robt	Edmonton	*251	Aug 18, 1902
Weder, Frank	Beaver Hills	*462	Oct. 28, 1903
Wells, Chas	Rosenroll	*517	Apr. 18, 1904
Wardrop, Jno. L	East Clover Bar	*640	Oct. 15, 1904
Will, Louis	Bankhead	*682	Jan. 3, 1905
Wilkinson, Richard	Olds	*754	Mar. 24, 1905
Whitecotton, Robt. M	Lacombe (dup.)	164	July 14, 1906
Wilson, Wm. Jos	Coleman	9	Sept. 16, 1905
Wallace, W J	Macleod	12	Sept 16, 1905
Wood, Wm. F	Tofield	44	Sept. 18, 1905
Whalen, Jas	Edmonton	69	Mar 1, 1906
Wetterberg, Theo	Canmore	100	Apr. 20, 1906
Watts, Sam	Lacombe	103	Apr. 24, 1906
Werner, Wm. Fred	Red Deer	108	Apr 24, 1906
Waymark, Richard T	Calgary	123	Apr. 30, 1906
Whitaker, Wm	Edmonton	129	May 4, 1906
Walker, Robt. T	Strathcona	134	May 10, 1906
Wisler, Oliver P	Stettler	136	May 10, 1906
Webber, Alfred	Medicine Hat	168	Aug. 11, 1906
Wickens, J. A	Cayley	199	Aug 13, 1906
Wright, Bruce M	Calgary	205	July 30, 1906
Watters, Wm E	Strathcona	227	Sept 20, 1906
Wynn, Robt	Kneehill Valley	291	May 20, 1907
Wood, Rex. R	Carstairs	309	May 29, 1907
Wacker, Grover	Rawdonville	322	May 29, 1907
Webster, Robt. J	Marwayne	390	June 14, 1907
Walkermeier, Wm	Heatherbrae	396	June 14, 1907
Wilcox, Isaac A	High River	423	June 19, 1907
Wilson, Archibald	Brant	428	June 19, 1907
Wilderman, Raymond A	High River	437	June 19, 1907
Walters, Wm	Claresholm (dup.)	864	Oct 24, 1908
Wilcocks, Wm	Lethbridge	475	July 15, 1908
Watson, Walter J	Claresholm	578	Mar. 23, 1908
White, Jack	Calgary	585	Mar 23, 1908
Wright, Merit B	Edmonton	593	Apr 2, 1908
White, Geo. T	Red Deer	639	Apr 14, 1908
Williams, Frank T	Crossfield	682	May 1, 1908
Winkleman, Jules	Leduc	711	May 18, 1908
Wilbert, Chas	Wetaskiwin	721	May 28, 1908
Walker, Preston	Lacombe	772	Sept 14, 1908
Watson, P	Edmonton	781	Sept. 18, 1908
Wentworth, Wm	Okotoks	806	Sept. 22, 1908
Wilson, Bert M	Nanton	843	Oct. 2, 1908
Wright, Leroy H	Cardston	859	Oct 6, 1908
Wilson, Chas. O	Spring Coulee	863	Oct. 21, 1908
Wallwork, Jas	Taber	903	Mar. 24, 1909
Webster, Alexr	Pincher Creek	933	Apr 1, 1909
Weber, Noah R	Carstairs	950	Apr. 6, 1909
Watts, Geo	Macleod	957	Apr. 9, 1909
Wilson, Andrew W	Vegreville	985	Apr. 20, 1909
Walker, Edgar N	Mundare	986	Apr. 20, 1909
Wilson, Jos. W	Edmonton	987	Apr. 20, 1909

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
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NAME	ADDRESS	NO. OF CERT	DATE OF ISSUE
<i>Third Class—Continued</i>			
Wyman, Clark I	Magrath	1007	Apr. 25, 1909
Walker, Chas. H	Warner	1008	Apr. 25, 1909
Williams, Edgar H	Bankhead	1034	Apr. 28, 1909
Woodecock, Frank F	Medicine Hat	1155	Sept. 28, 1909
Wiltzen, Martin	Chipman	1043	Apr. 29, 1909
White, Edward	Lethbridge	1056	May 3, 1909
Ward, John	Edmonton	1071	May 21, 1909
Winter, Archibald	Strathcona	1072	May 21, 1909
Wulff, Nick	Edmonton	1084	July 13, 1909
Weisser, Christian B	Camrose	1094	Sept. 7, 1909
West, Wm. A	Mewassin	1099	Sept. 13, 1909
White, Thos J	Sterling	1108	Sept. 15, 1909
Wick, Anton	Lineham	1137	Sept. 21, 1909
Wilson, Aura L	Carstairs	1138	Sept. 21, 1909
Wood, Roy J.	Carstairs	1139	Sept. 21, 1909
Wolanskey, John	Edmonton	1149	Sept. 25, 1909
Wonnop, Jos. L	Lawrence	1156	Sept. 28, 1909
Watt, Geo	Strathcona	1184	Dec. 4, 1909
Young, Arthur	Banff	*491	Mar. 14, 1904
Young, D. M	Lethbridge	4	Sept. 16, 1905
Yeamans, Chas A	Edmonton	74	Mar. 26, 1906
Young, Jno T	Stavely	465	July 15, 1907
Young, Alvia L	Markerville	643	Apr. 14, 1908
Young, David	Strathcona	786	Sept. 21, 1908
Young, Peter	Calgary	959	Apr. 9, 1909
Zuehlke, F. C	Urquhart	*188	Dec. 18, 1901
Zimmerman, Otto	Red Lodge	*756	Mar. 24, 1905
Zaczehowski, John	Edison	1150	Sept. 25, 1909

*Indicates Certificate was granted by North-West Territories.

CORRESPONDENCE BRANCH

EDMONTON, January 14, 1910.

JOHN STOCKS, Esq.,
Deputy Minister of Public Works,
Edmonton, Alberta.

SIR.—I have the honour to submit the following report regarding the Correspondence Branch and the general work of the department for the year ending December 31st, 1909.

In view of the large increase of work in the various branches of the department our work has consequently been very heavy, as the comparative statement below will show. It has been found necessary to enlarge our card index system, and on this and recording new files, which of necessity must be kept up to date, the time of one clerk has been mostly taken up. The cash receipts is also a large item, and the time of one clerk has almost exclusively been occupied on this work. It was necessary to engage a junior clerk to assist with the collection and distribution of mail, also filing correspondence.

Regarding records in connection with the general work of the department, we find that the new card index system installed is going to work very satisfactorily and will dispense with a great number of books which would otherwise be necessary, and will enable us to keep closely in touch with outside work.

The following comparative statement will give a fair idea of the work done during the year:

	1907	1908	1909
Number of letters received	58,320	93,400	118,439
Number of returned letters and circulars	13,201	10,905	10,462
	71,521	104,305	128,901
Number of entries in cash book	12,966	18,500	23,421
Number of registered letters received	2,302	4,733	4,492
Amount of cash received	\$161,613 01	\$414,863 15	\$684,840 49
Number of letters sent	51,058	71,434	85,705
Number of receipts and tax certificates sent	13,189	20,589	28,268
Number of circulars sent	64,532	44,377	57,187
	128,779	136,400	171,160
Number of registered letters sent	3,432	7,200	12,946
Amount of postage used	\$1,844 92	\$2,921 50	\$3,350 54
SUMMARY			
Number of communications sent.	71,521	104,305	128,901
Number of communications received	128,779	136,400	171,160
	200,300	240,705	300,061
Average number of communications per day	668	802	1,000

Respectfully submitted,

R. J. GILLIS,

Chief Clerk

ACCOUNTANT'S BRANCH

Staff	{ 1 Accountant 1 Assistant accountant 5 Clerks	
Amount voted from Capital Account	\$800,000 00	
Amount voted from Income	710,173 00	
Special Warrant	100,000 00	
		\$1,610,173 00
Amount voted for Civil Government	\$51,460 00	
Special Warrant	10,000 00	
		61,460 00
Total amount provided in connection with the Department of Public Works during 1909		\$1,671,633 00

Monies collected as Departmental Revenue on account of Department of Public Works and placed to the credit of General Revenue	31,697 89
Monies collected by Public Works and placed to the credit of General Revenue Suspense Account for distribution to proper accounts, \$9,733 80	
Monies on hand in General Revenue Suspense Account December 31, 1909, as represented by cash book balance	948 96
Amount received on account of Large Local Improvement Districts and placed to the credit of Trust Account	237,197 03
Amount expended on account of work in Large Local Improvement Districts during 1909	187,545 89
Amount expended from General Revenue during 1909	1,502,290 13
Amount expended in connection with Civil Government	59,688 28
Amount of monies received on account of University Construction and placed in special account for that purpose	
Interest on same	18,025 15
Amount expended in connection with the construction of the Provincial University during 1909	17,886 45
Receipts	287,869 03
Expenditure	1,767,410 75
	\$2,055,279 78 \$2,055,279 78

Details of expenditure are as follows:

Furnishing and maintenance of public buildings, \$60,495 94
 Construction of new buildings, \$654,308 87. Inspection of steam boilers, \$10,611 03 Inspection of coal mines, \$8,427 76 Fire-guard construction and maintenance, \$365 50 Boring and testing for water, \$11,485 42 Ferries, construction and maintenance, \$15,128 43 Survey of ditches and drains, \$9,686.71 Maintenance of bridges, \$31,123 20. Road construction and repairs, \$210,853.90 Bridge construction, \$275,040 78. Survey of roads, and compensation in connection with same, \$58,455 01 Purchase of sites for public buildings, \$61,673 60 Purchase of tools and implements, \$9,881 38. Inspection of public works, \$24,466 14 For unforeseen and unprovided for accounts, \$6,565 86 An amount expended under special warrant in connection with purchase of parliament buildings site, \$53,720 60. The total amount expended in connection with staff salaries for the year in connection with the Department of Public Works amounted to \$47,569 09 And the departmental expenses amounted to \$12,119 19. The total amount spent in connection with large local improvement districts amounted to \$187,545 89, and of this amount \$23,391 40 was expended on salaries, the Educational Trust account refunding the sum of \$4,917.63, being their proportion of salaries and expenses The Provincial University expenditure for the year in connection with the foundation work and clearing of site amounted to \$17,886 45, this expenditure being taken care of through certain funds provided by the University authorities, the same being placed to the credit of University Construction account in the Canadian Bank of Commerce

Number of accounts examined, and passed to the Treasury Department for payment	7,455
Number of accounts for work done in large local improvement districts, examined and passed for payment	1,659
Total number of accounts examined and passed	9,114
Number of cheques issued in connection with the payment of work done in local improvement districts	5,256

Number of cheques issued in connection with removal of monies from general revenue suspense	219
Number of cheques issued in connection with Provincial University construction	274
Total number of cheques issued	5,749

TELEPHONE BRANCH

EDMONTON, February 23, 1910

JOHN STOCKS, Esq.,
Deputy Minister of Public Works,

SIR, -I have the honour to submit for your information the following resume of the work carried out by the Telephone Branch for the year 1909:

CONSTRUCTION

Comparing the work accomplished in 1908 with 1909, it will be seen that, although it was impossible, owing to the late spring and the consequent frost remaining in the ground, to start construction as early as we would have liked yet the amount of construction in 1909 exceeds that of 1908.

At the beginning of the season we were inundated with petitions, both for long distance toll lines and rural lines, from every part of the province. Every petition was carefully weighed and scrutinized, and in cases where it was impossible to judge from the information at hand if the proposition qualified according to the Government's policy, an inspector was sent out in the field to investigate and report.

Naturally some disappointment was caused by having to refuse petitioners lines which did not qualify, and with no prospect of them qualifying for some considerable time. However, we judge that this is sound business and appeals to both the Government and people alike.

On the other hand, some petitions which qualified and were accordingly approved for construction, owing, as stated before, to the flood of applications received had to be held over until 1910, but these will likely be the first construction undertaken this year.

The following is a statement showing the various works undertaken and finished during 1909:

Long Distance Toll Lines Built 1909.

LINE	MILES	CIRCUIT
Edmonton-Calgary	75	3rd circuit
Blainmore-Crow's Nest	12	
Blairmore-Macleod	64	2nd circuit
Calgary-Macleod	116	3rd circuit
Curlew-Trochu	12	
Calgary-Shepard	13	
Sedgewick-Hardisty	22	
Brosseau-St. Paul de Metis	32	
Vegreville-Warwick	9	
High River-Pekisko	25	
Edmonton-Fort Saskatchewan	18	2nd circuit
Carstairs-Acme	14	
Stettler-Botha ..	10	
Edmonton-Tofield	44	
Sunnyslope-Three Hills	12	
Calgary-Strathmore	55	
Total miles	533	

Rural Lines Built 1909.

LINE	POLE MILEAGE	WIRE MILEAGE
Wetaskiwin-Huard Lake	10½	17
Macleod-South-east	10	11
Didsbury East	6	10
Alix-Lammerton	6	6
Camrose-Round Hill	30	34
Sunnyslope West	7	10
Edmonton North	16	16
Camrose West	3	9
Innisfail-Lakeview	7	7
Red Deer South-east	5	10
Penhold East	7	8
Namao (Edmonton-Namao)	16	20
Daysland-Spring Lake	15	23
Strathcona South	5	10
Lacombe-Canyon	4	4
Rosenroll-Highland Park	2	3
Vegreville North-west	3	3
Edmonton-Clover Bar	38	50
Strathcona East	8	20
Fort Saskatchewan South	9	
Lacombe North	4	4
High River-Brant	41	54
Claresholm North-west	3	9
Calgary East	35	40
Leduc South	9	10
Fort Saskatchewan West	9	10½
Valley City South	33	41
Mundare South	25	25
Innisfail West	22	27½
Botha-Red Willow	40	45
Fort Saskatchewan-Elk Park	8	23
High River North-east	27	37
Wetaskiwin East	10½	11
Bentley South	11	11
Blackfalds West	15	15
Camrose South	31½	38
Vegreville West	20	20
Stettler South	14	14
Crossfield East	17	17
Lacombe West	9	15
Calgary-Simons Valley	15	25
Lethbridge South-east	10½	14
Bawlf North-west	6½	11
Cardston-Raley	6	17
Macleod North-east	16½	38
Trochu Village	3	6
Cochrane-Grand Valley	16	20
Cochrane-Jumping Pond	21	25
High River-Pekisko	40	60
Chin	5	5
Springbank	34	38
Carstairs East	27	33
Edmonton-Namao		30
Total	793	1040

New Exchanges.

Alix, Airdrie, Bowden, Crossfield, Cochrane, Granum, Sedgewick, Stavely, Stirling.

New Toll Offices.

Botha, Cooking Lake, Glenbow, Hardisty, Loughheed, Langdon, La Fonde, Ministik, Pekisko, Shepard, St. Paul de Metis, Three Hills, Tofield, Trochu, Strathmore.

Extensions and Additions to Existing Exchanges Rendered Necessary by Growth.

Calgary, Camrose, Canmore, Cardston, Claresholm, Lloydminster, Ledue, Macleod, Magrath, Medicine Hat, Nanton, Raymond, Strathcona, Vegreville, Wetaskiwin.

Included in the above amount of long distance toll lines constructed is an extra copper circuit built from Macleod through the Crow's Nest Pass to the B C boundary at Crow's Nest. This is connected with the Kootenay Telephone Lines, Limited, giving service from Alberta to Fernie, Cranbrook, Rossland and other Kootenay Valley cities and towns

In addition to this, owing to the rapid increase in business at Strathcona and Edmonton, it was found necessary to erect an additional 50 pair cable across the Saskatchewan River to afford more efficient trunking service between these points

The automatic equipment at Strathcona having been giving good service at lower cost of operation, it was decided to install it at Lethbridge, where a new switchboard was required, the old magneto board at that point having outgrown its capacity. This installation at Lethbridge was completed on December 6th, 1909. The equipment is installed in a handsome new building, erected by the Public Works Department on a site purchased by the Government for the purpose, and the whole plant, both inside construction and central station equipment, completes one of the finest and most up-to-date telephone plants on the continent

At Calgary the present Central Energy Manual board, owing to the rapid growth, has reached its ultimate capacity. To meet these conditions a Branch Exchange of the automatic type was installed in East Calgary. A site was purchased and a small Branch Exchange building was erected; all subscribers in East Calgary are thus equipped with automatic telephones, working in conjunction with the main exchange. This is done with a view that if it is found desirable in the future to make the whole city automatic we have the foundation laid in East Calgary, without loading up the system with equipment which would otherwise have to be discarded

Besides the sites purchased at Calgary and Lethbridge mentioned above, a site was also purchased last year for Wetaskiwin and plans are being prepared for Exchange building at that point

At the first of the year a new method of handling the Stores was inaugurated and it is satisfactory to note that the system has proven out well and material and shipments have been handled economically and to the best advantage, the construction gangs in the field being supplied promptly with material, with no delays to the work

OPERATION

After the purchase by the Government of the Bell System in 1908, it was found that the amount of long distance toll circuits in use was entirely inadequate to supply the demands of this service, especially in the southern part of the province, and the complaints were growing continually from our patrons as to their inability to get their business through. Extra circuits were immediately approved for construction where necessary to relieve the congestion, and I am pleased to say that for the past year these complaints have been reduced to a minimum, and that today we are giving an L D toll service second to none. The operating staff have had to handle a growing increase in this class of business, as well as the rapid growth in exchange business

The following is a comparison of the Toll business for 1908 and 1909:

Toll business for 1908	\$ 89,723 00
Toll business for 1909	123,746 60
Increase	\$ 34,023 60

The long distance connections with British Columbia show a very large volume of business being done between Alberta and B.C. points

The total mileage of our lines and number of offices in operation at the end of 1909 are as follows:

	1909	1908
Total mileage of L D lines	2,392	1,859
Total mileage of rural lines	1,535	742
Total number of town exchanges	58	49
Total number of rural exchanges	23	
Total number of toll offices	108	93
Total number of other line exchanges	9	9
Total number of exchange subscribers		6,176
Total number of rural subscribers		1,317
Total number of subscribers		7,493

To show the rapid growth consequent upon the demand for telephone service in the towns and cities, the following are some of our larger exchanges with the percentage of increase for 1910:

Calgary	44 per cent.
Clareholm	30 "
Lethbridge	43 "
Macleod	56 "
Raymond	50 "
Stettler	50 "
Strathcona	30 "
Taber	40 "

As this demand for telephone service, so general in nature, is extraordinary, it reflects credit on the department that with very few exceptions all applications have been promptly met and service given and we aim to keep pace with future demands in the same manner, and the demand is still as great or even greater for 1910.

General.

Following is a statement of revenue and expenditure for 1909:

EXPENDITURE

Construction	\$508,984 08
Tools	2,849 59
Buildings	19,245 93
Operation	129,778 64
Maintenance	46,688 64
	\$707,546 88

REVENUE, 1909.

Rentals		\$146,678 35	
Long distance tolls		131,264 07	
Interest		1,416 92	
Sale material		1,508 89	
Revenue for 1909			\$280,868 23
Operation expense		\$129,788 64	
Maintenance expense		46,688 64	
			\$176,467 28
Interest, etc		\$108,974 05	
Less 1908 interest		36,166 60	
			72,807 45
Surplus for 1909			31,593 50
			\$280,868 23

ASSETS AND LIABILITIES, (1906, 1907, 1908 AND AS AT DECEMBER 31, 1909)

ASSETS

Capital Account (Construction or Purchase)—			
Lines (L.D. and Rural)		\$826,960 25	
Exchanges		847,836 19	
Sites		27,875 97	
Buildings		82,322 18	
Stores (material on hand not distributed)		47,658 58	
Total Capital Account			\$1,832,653 17
Cash Balance in Bank			148,926 74
Debenture Issue Expenses—			
Total value		\$2,000,200 00	
Net proceeds		1,940,194 00	
Difference to be written off annually during thirty year life of debentures			60,006 00
			\$2,041,585 91

LIABILITIES

Debentures maturing June, 1st, 1938		\$2,000,200 00	
Stores adjustment (pending inventory)		1,337 94	
Balance Profit and Loss Account—			
Cash Receipts		\$404,135 01	
Operation and maintenance expense		364,087 04	
Surplus			40,047 97
Total Liabilities			\$2,041,585 91

Both of the above statements it is pleasing to note show a satisfactory balance on the right side.

Regarding the rural system of our branch It is impossible to arrive at a statement for 1909 showing cost of operation and revenue, owing to the fact that the lines were not all completed until December As a criterion the rural lines built in 1908 and operated during 1909 show the following:

Construction	\$87,544 59
Operation and maintenance	4,600 34
Revenue	6,417 09
Excess of revenue over operation and maintenance expenses	1,816 75
or, a little over two per cent.	

This seems gratifying as it had been expected that the rate charged for rural service was calculated to cover the cost of maintenance and operation alone.

I had the privilege of attending the International Telephone Convention in Chicago in December. Certain ideas and methods were discussed, which I will be able to bring to your attention as occasion demands. One important feature and which has been sanctioned was a certain change in organization.

Briefly: The system is eventually to be divided into two departments designated respectively, The Plant Department and the Traffic and Operation Department. Arrangements have now been made to work this out on a small scale and during the coming year we hope that the worth of the scheme will have been demonstrated sufficiently to sanction the working out of future organization along these lines as the system grows.

I might mention another important matter discussed by telephone engineers at this convention, viz.: the commercial distances Long Distance Toll Lines can be used and the class of construction necessary to obtain the maximum distances. It was found by experience in the large telephone companies that, taking No. 8 N.B.S. copper wire as the basic standard, approximately 1,000 miles would be the length of a circuit that business could be handled satisfactorily. Necessarily in arranging through circuits, copper circuits of a smaller size than the No. 12 would be equated on this basis and it might be advisable, in view of this, that in future construction of our through copper toll lines this fact be kept before us.

In conversation with telephone officials of the Manitoba Government it was suggested that as there seems to be a general idea with telephone patrons that telephone connection should be established between the prairie provinces, viz., Manitoba, Saskatchewan and Alberta, that representatives from the three Governments might meet together and if some preliminary basis of agreement could be arrived at, future construction of toll circuits towards the boundary of each province might be erected on class of construction as specified above.

Concluding, if the handling of the telephone business seems satisfactory, judging from the statements submitted herewith, I might say that, as mentioned in the beginning of the report, we have tried to handle the system along business lines, and so far as we do not try to include unprofitable construction in our plans, the telephone system bids fair to be a self supporting adjunct of the Government.

Respectfully submitted,

A. J. RICHARDS,
Superintendent.

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